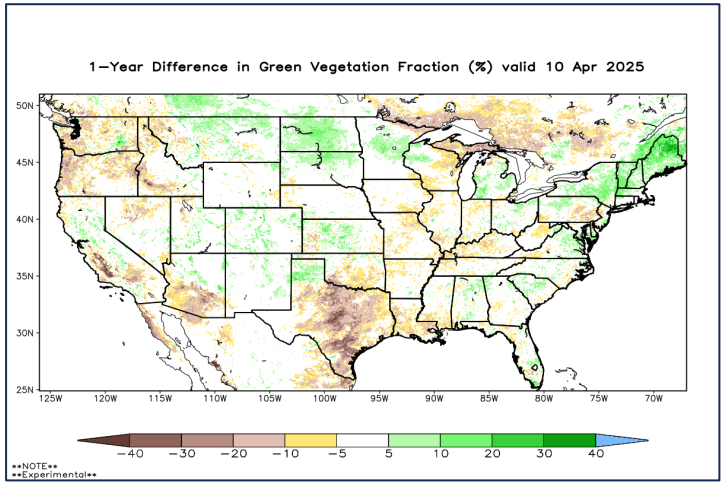
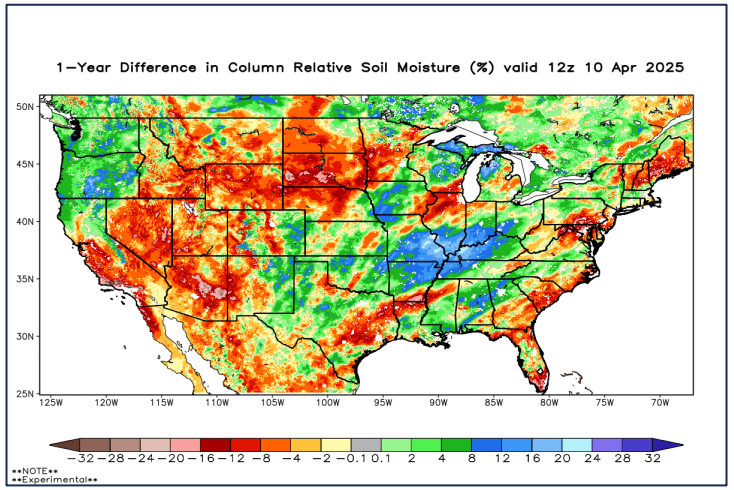
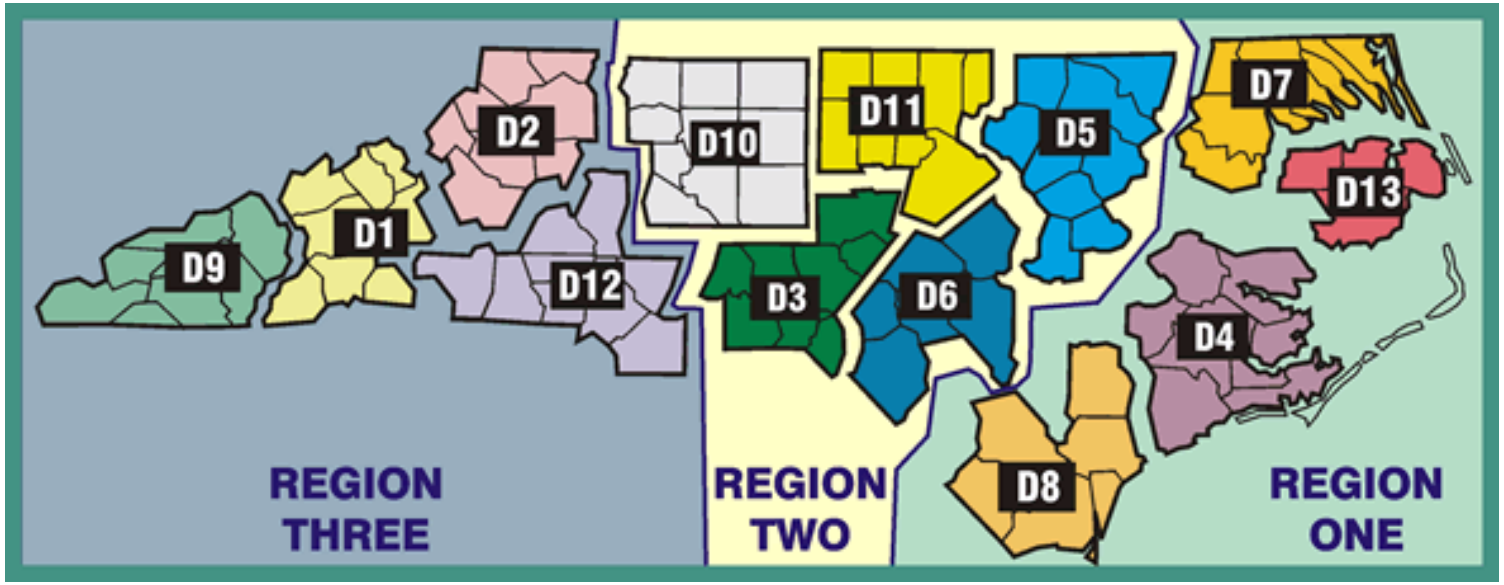
For Time Period:

Friday (4/11/25) to Thursday (4/17/25)

Weekly Fire Danger Assessment NCFS – All Regions







Created by: Jamie Dunbar
Fire Environment Staff Forester
NC Forest Service

Statewide Context

January: 10-yr avg is 309 fires for 530 acres
February: 10-yr avg is 618 fires for 1,598 acres
March: 10-yr avg is 891 fires for 4,784 acres
***April: 10-yr avg is 629 fires for 6,546 acres**
May: 10-yr avg is 293 fires for 1,161 acres
June: 10-yr avg is 243 fires for 2,424 acres
July: 10-yr avg is 193 fires for 645 acres
August: 10-yr avg is 138 fires for 395 acres
September: 10-yr avg is 173 fires for 377 acres
October: 10-yr avg is 236 fires for 1,962 acres
November: 10-yr avg is 462 fires for 6,035 acres
December: 10-yr avg is 305 fires for 580 acres

MTD: 171 incidents for 899 acres
7-Day Activity: 131 incidents for 252 acres

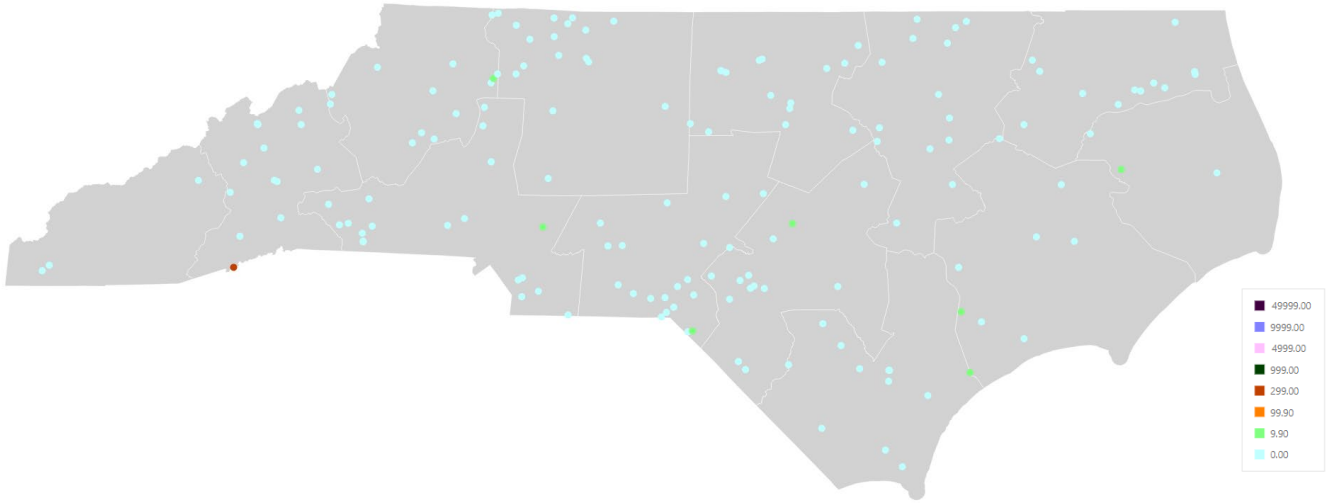
All fire activity data is preliminary
Does not include additional federal fires/acres
2015-2024 CY Average

---.

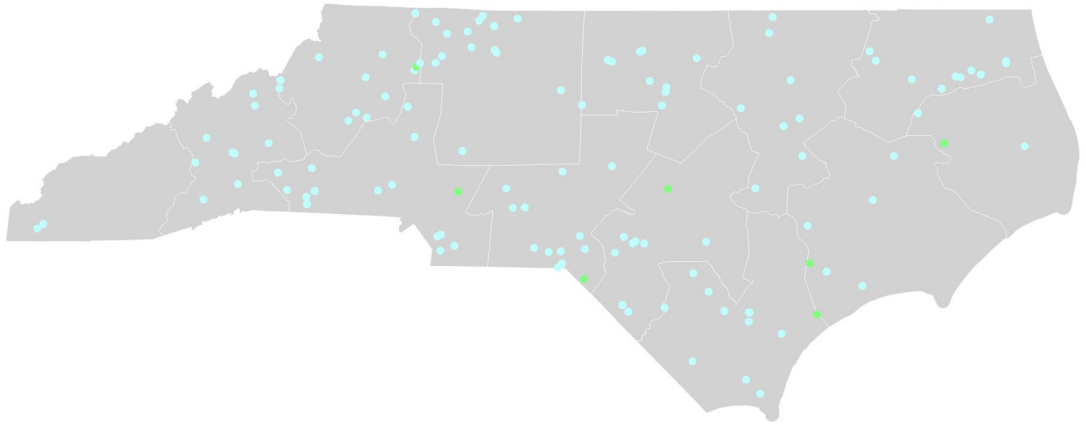
Largest incidents last **MTD** (Ending 4/10):
from fiResponse & preliminary reporting only

Incident Name	Discovery Date	Region	District	County	Acres
Table Rock Complex	4/2/2025	Region 3	District 1	Transylvania County	635.00
Zion Church Road	4/5/2025	Region 3	District 12	Cabarrus County	40.00
Rose Acre Fire	4/7/2025	Region 1	District 13	Hyde County	35.00
Drag Strip	4/8/2025	Region 1	District 8	Pender County	30.00
Horse barn	4/5/2025	Region 2	District 3	Scotland County	22.00
Hudspeth #2	4/5/2025	Region 3	District 2	Wilkes County	18.00
Cedar Fork Road	4/5/2025	Region 1	District 4	Onslow County	15.00
Hay Hobbs	4/4/2025	Region 2	District 6	Harnett County	14.00
Brick Yard	4/5/2025	Region 2	District 5	Wilson County	7.00
Bear Farm Rd	4/2/2025	Region 2	District 6	Johnston County	5.00
Old Jones Rd	4/7/2025	Region 1	District 8	Bladen County	5.00

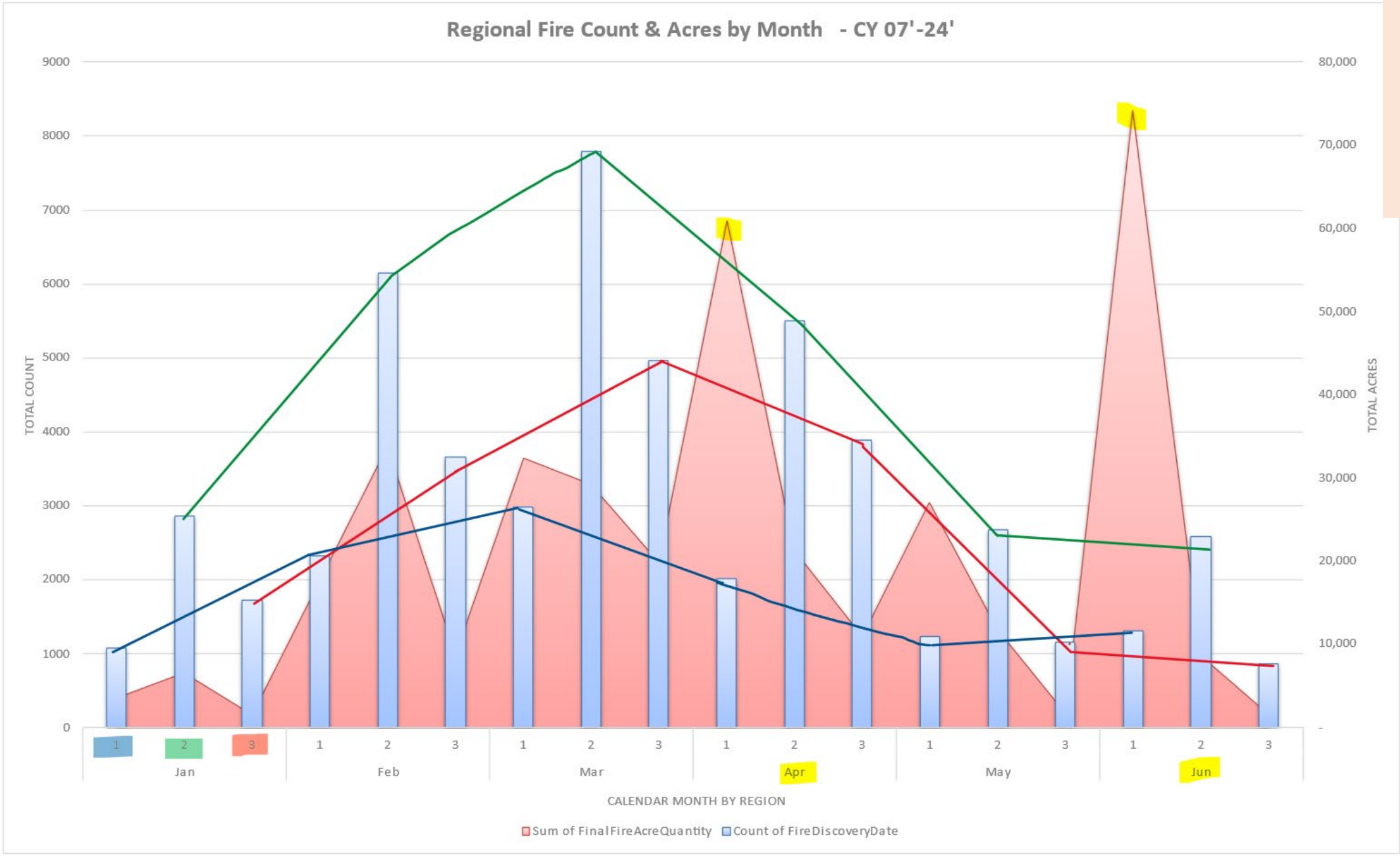
April MTD (ending 4/10)



Last 7-Days (4/4 - 4/10)

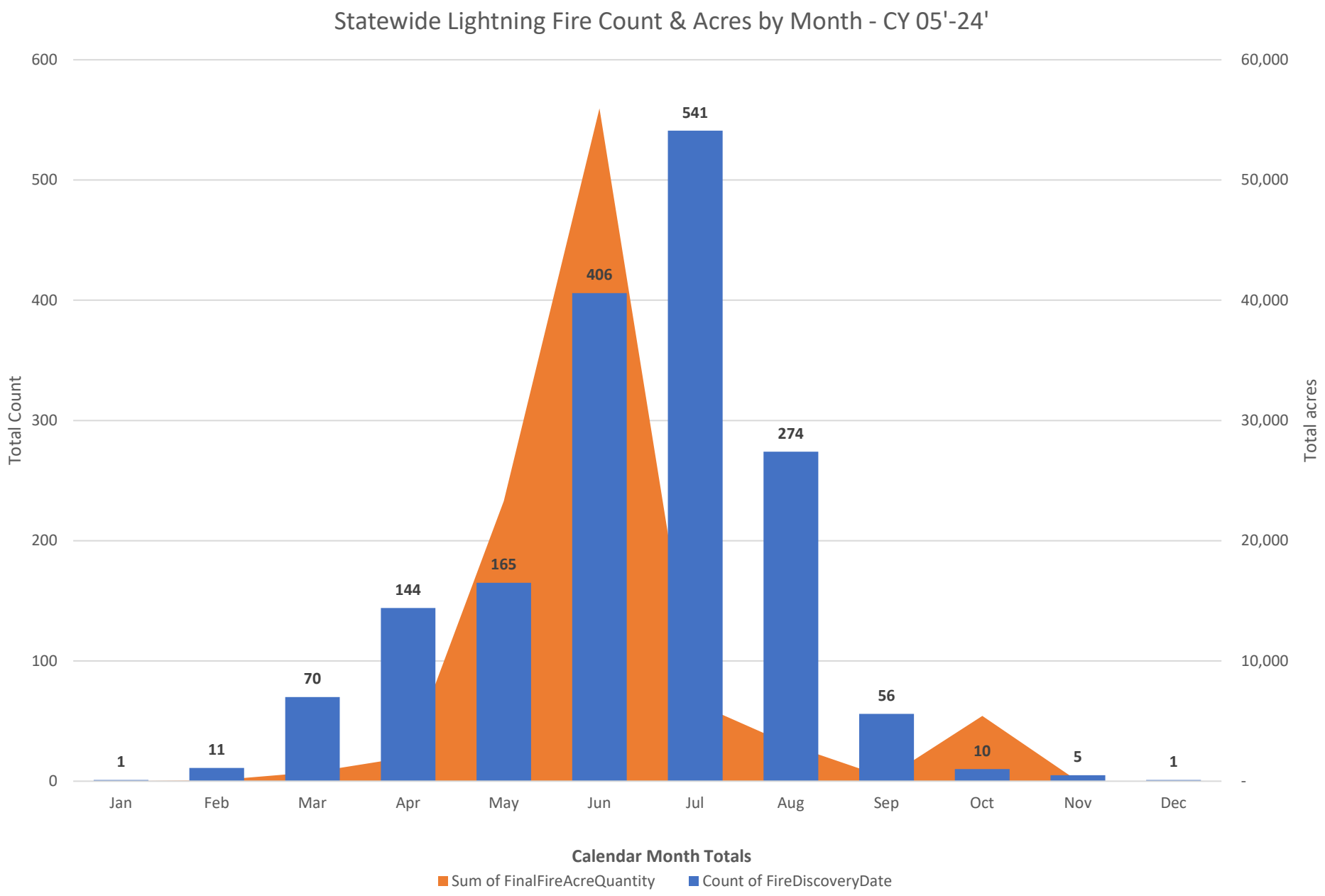


Note: DOD & other federal ownership fires not shown on fiResponse



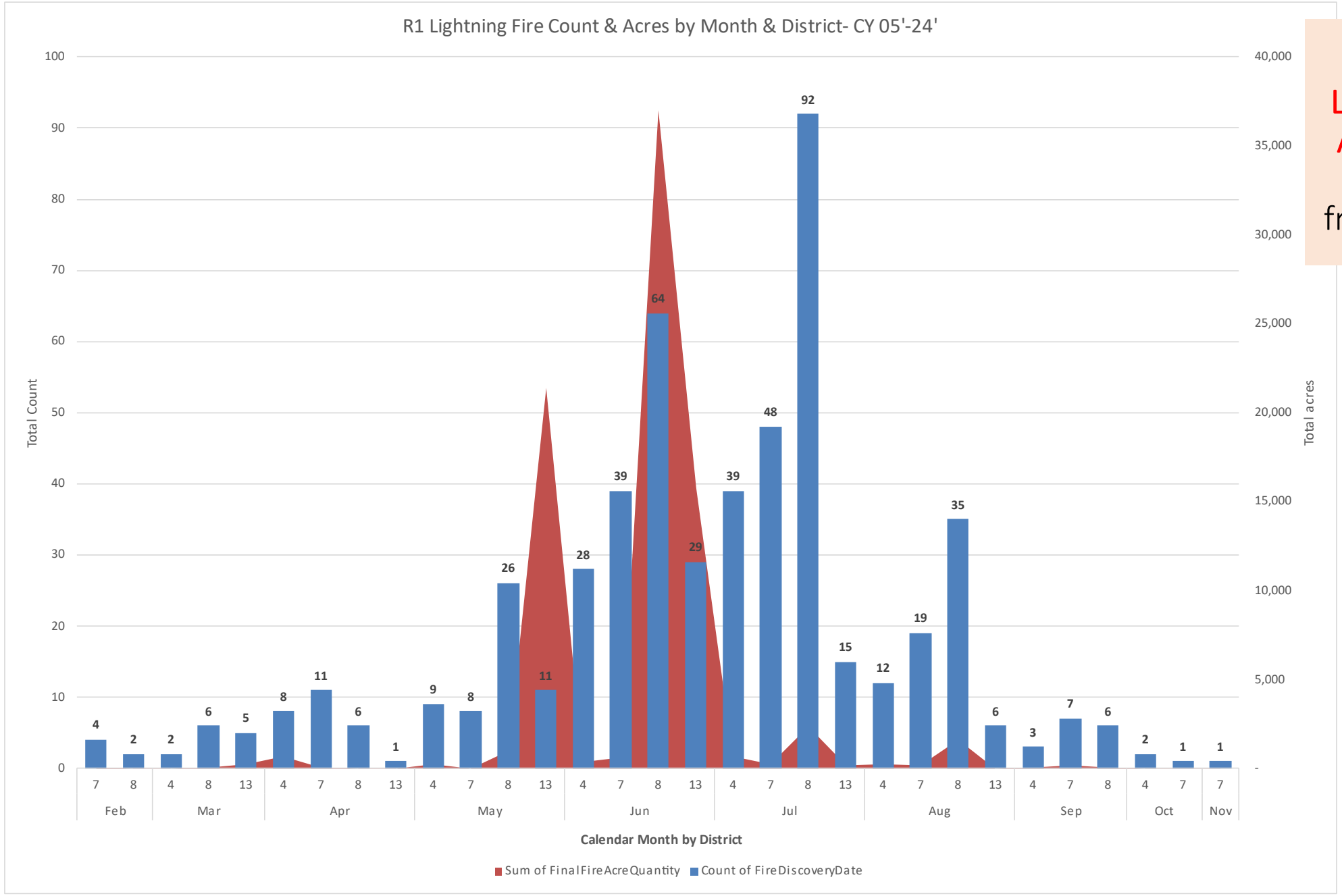
Distribution of **All Fires & Acres By Month *Regional*** from 2007 - 2024

Cause: All Cause Codes, Regional Binning, NCFS Reported Fires Only



Distribution of **Lightning Fires & Acres By Month *Statewide*** from 2005 - 2024

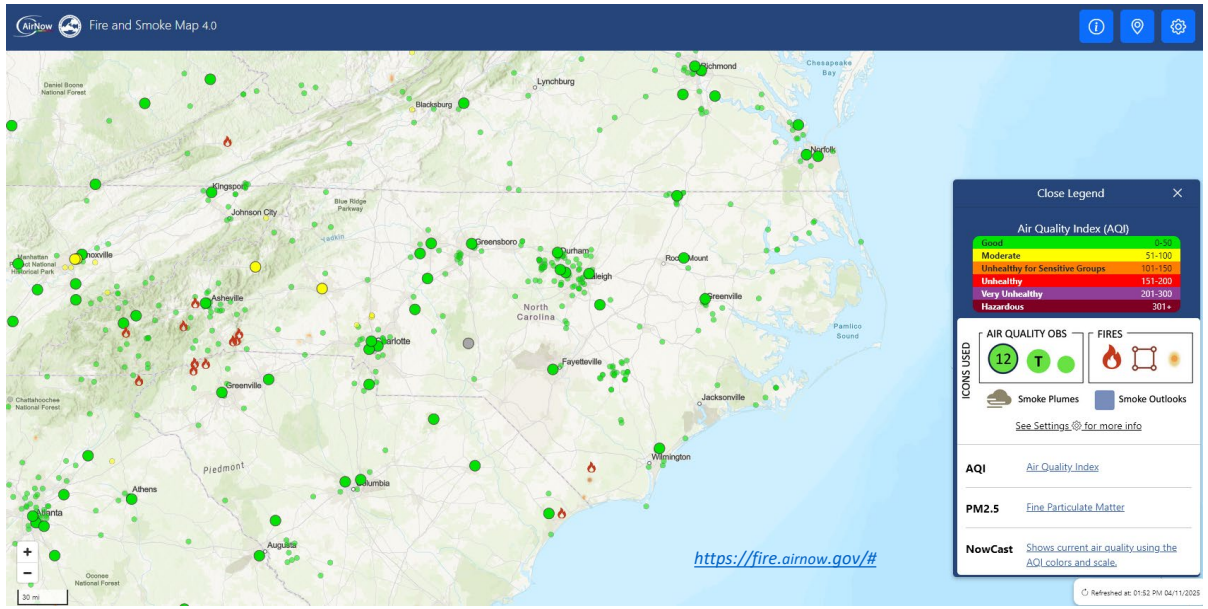
Cause: Lightning Cause Code, Statewide, NCFS Reported Fires Only



Distribution of
Lightning Fires &
Acres By Month
R1
from 2005 - 2024

Cause: Lightning
Cause Code, R1
Districts, NCFS
Reported Fires Only

Air Quality Notes



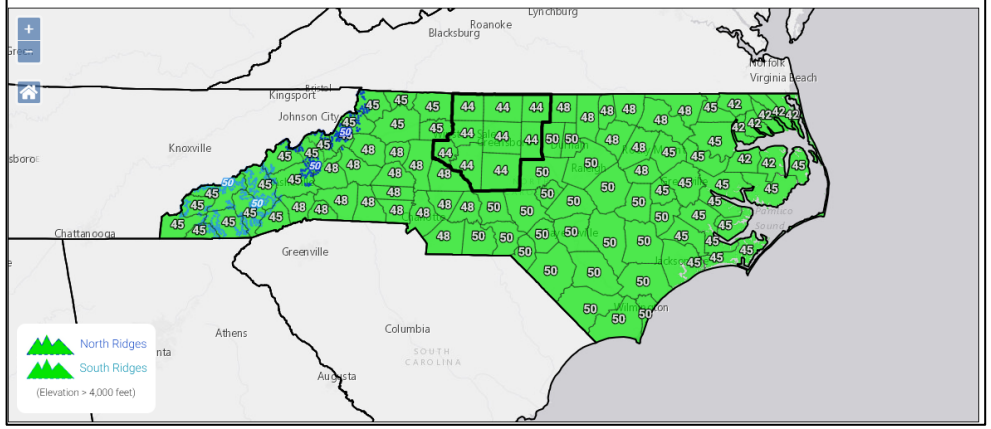
Extended Air Quality Outlook

The forecast Air Quality Index value for each pollutant represents the highest value expected within each county, so some areas and monitors may see lower values. We use the best information and techniques available to ensure the quality and accuracy of the forecasts we provide to the public. Note that ranges do *not* include the nine-county Triad region, which is covered by the Forsyth County Office of Environmental Assistance and Protection.

Forecast Day	View Maps	Max AQI Range	Category Range	Download KML
Thursday (Apr 10)	Max AQI · Ozone · PM2.5	38 to 54	Green to Yellow	download
Friday (Apr 11)	**Max AQI** · Ozone · PM2.5	42 to 50	Green	download
Saturday (Apr 12)	Max AQI · Ozone · PM2.5	40 to 45	Green	download
Sunday (Apr 13)	Max AQI · Ozone · PM2.5	45 to 50	Green	download

Maximum Air Quality Index for Apr 11, 2025

0 51 101 151 201 301



This forecast was issued on **Thursday, April 10, 2025** at **2:21 pm**. This forecast is currently valid.

Today's Air Quality Conditions

Current daily averages for fine particulates are in Code Yellow range in the western third of the state. Current hourly ozone values are in Code Green range statewide.

For a display of the most recent Air Quality Index (AQI) conditions throughout the day, visit the Ambient Information Reporter (AIR) tool.

General Forecast Discussion

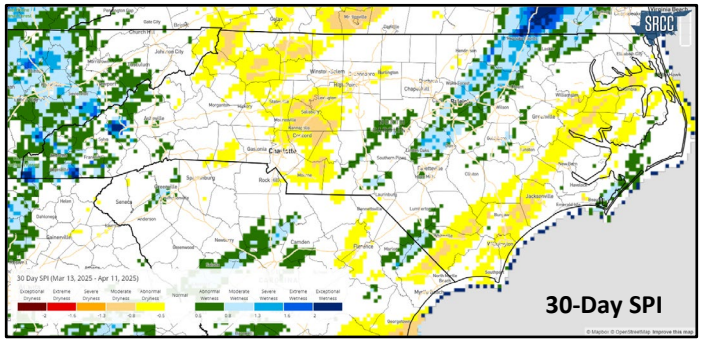
An upper-level low will slowly move over the state Friday which will bring some clouds and scattered showers and thunderstorms. This should help keep ozone maximum 8-hour averages in Code Green range. However, a bit more sunshine may be observed across the southern and southeastern portion of the state where a dry slot will be and this, along with some ozone aloft, may lead to higher values. As for fine particulates, scattered rain between Thursday night and Friday should help keep averages relatively down. However, upstream fine particulates moving into the state may still keep averages elevated in Upper Green to some localized low Yellow.

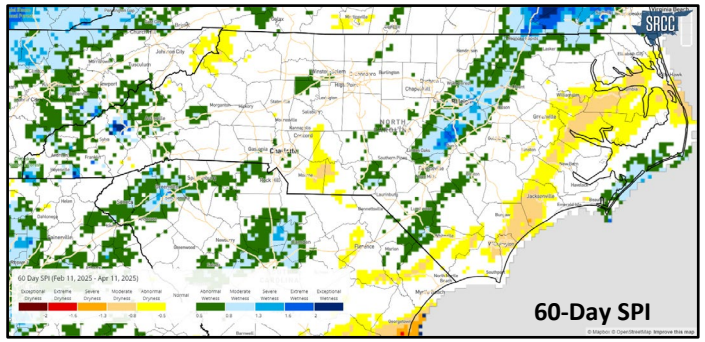
Outlook

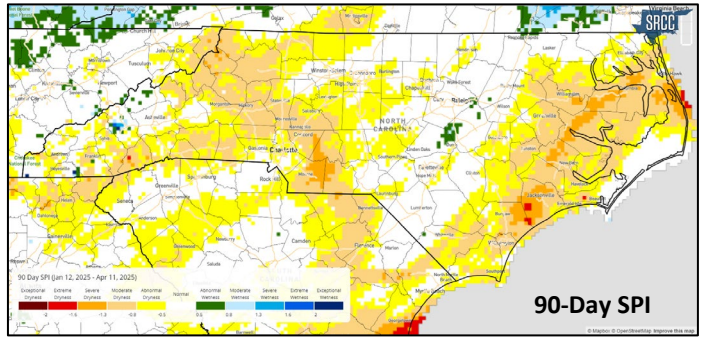
The upper-level low will remain over the state on Saturday but will exit on Sunday. Low-level moisture wrapping around this low should keep clouds around, especially across the eastern half of the state on Saturday. This should keep a cap on ozone. Widespread sunshine on Sunday may lead to a slight uptick in ozone. As for fine particulates, Code Green averages are forecast through the weekend. However, values may end up slightly higher and reach Code Yellow if elevated fine particulates upstream reach the state. This will be monitored.

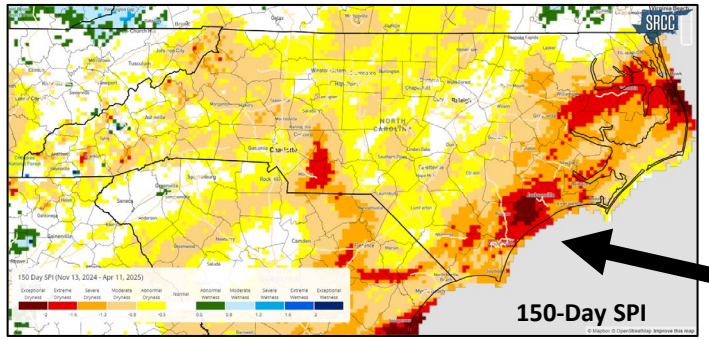
Author: *Jordan Root (jordan.root@deq.nc.gov) - NC Division of Air Quality*

https://airquality.climate.ncsu.edu/discussion/?view=latest

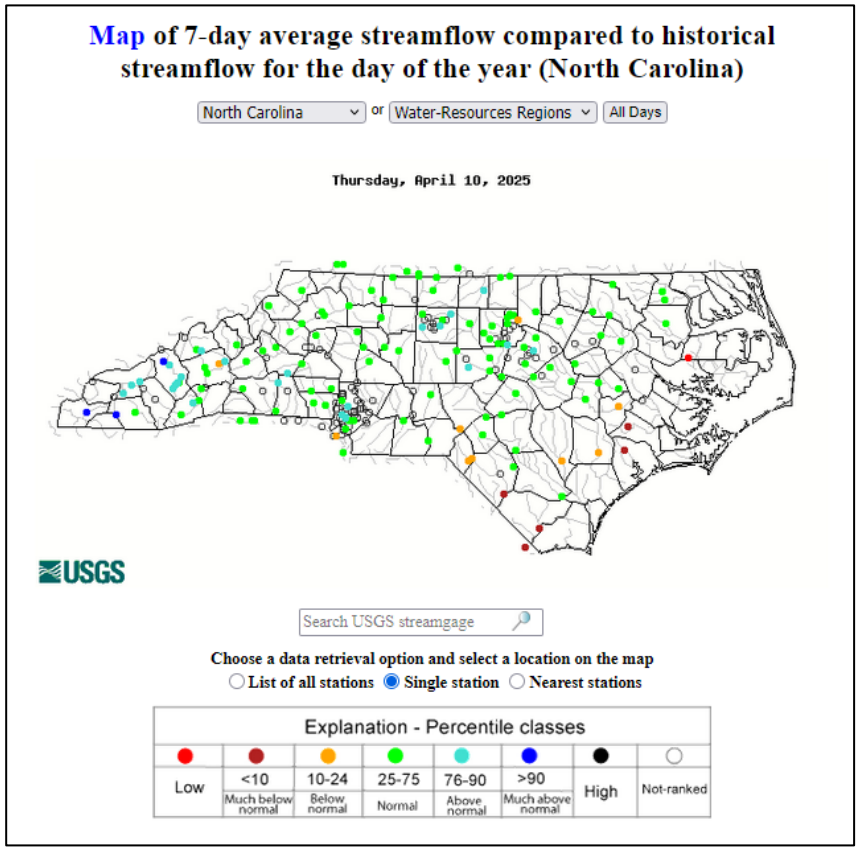


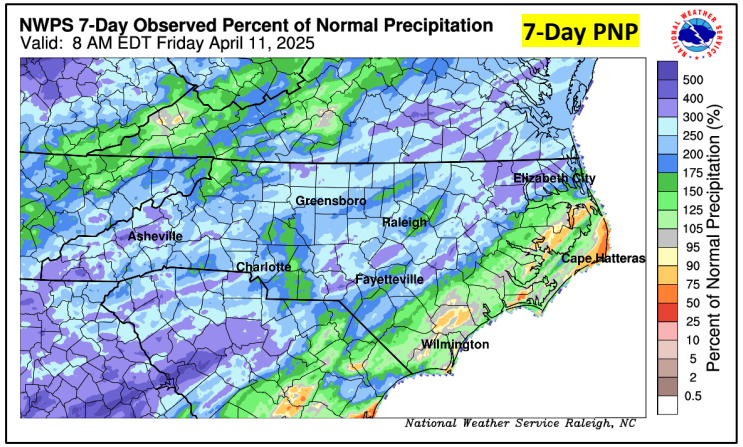


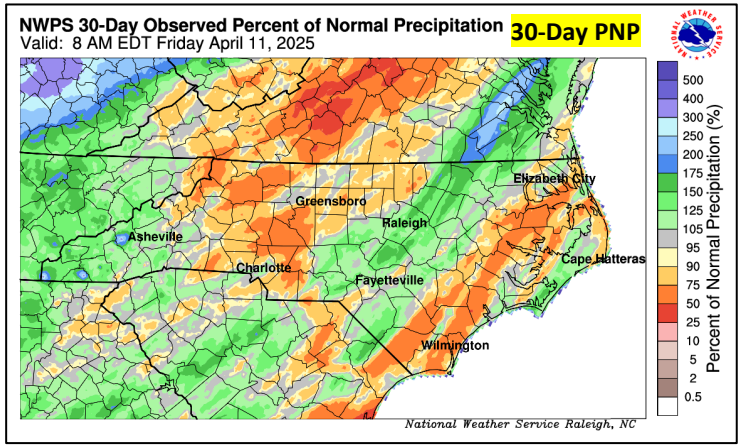




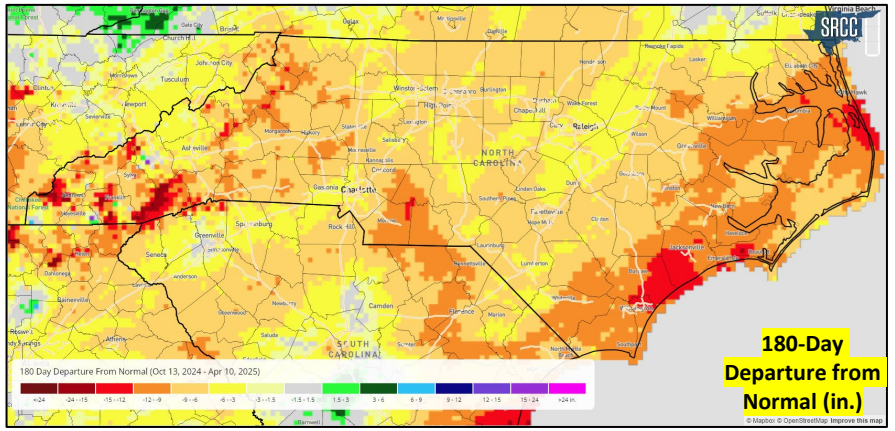
https://srcc.tamu.edu/water_portal/

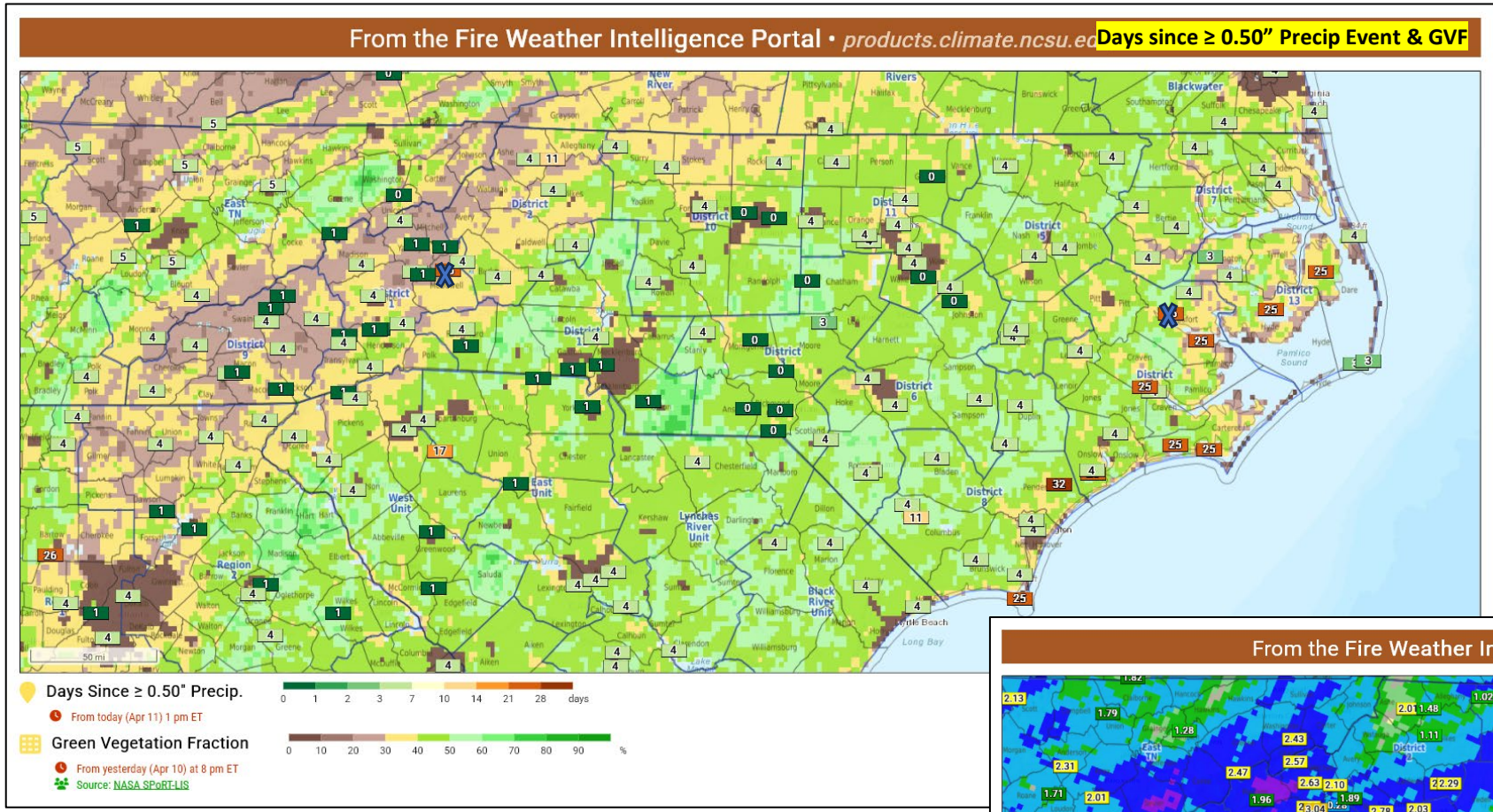






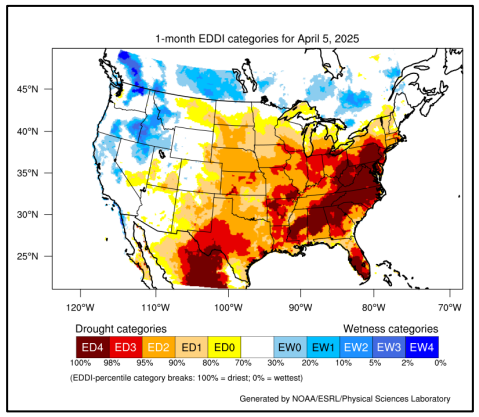
- Note the 7 & 30 day PNP graphics (top right).
- Streamflow improvements west, declines remain east (center top).
- 180-Day Departure from Normal Precip – areas in darker orange & red represent 9-12” & 12-15” + (bottom right).
- Improvements to 30/60-Day SPI Map, several pockets remain in state. (top left).
- 90/150-Day SPI picking up on longer-term pockets of dryness (left).

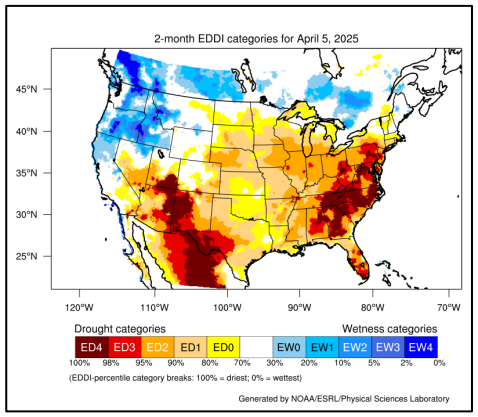


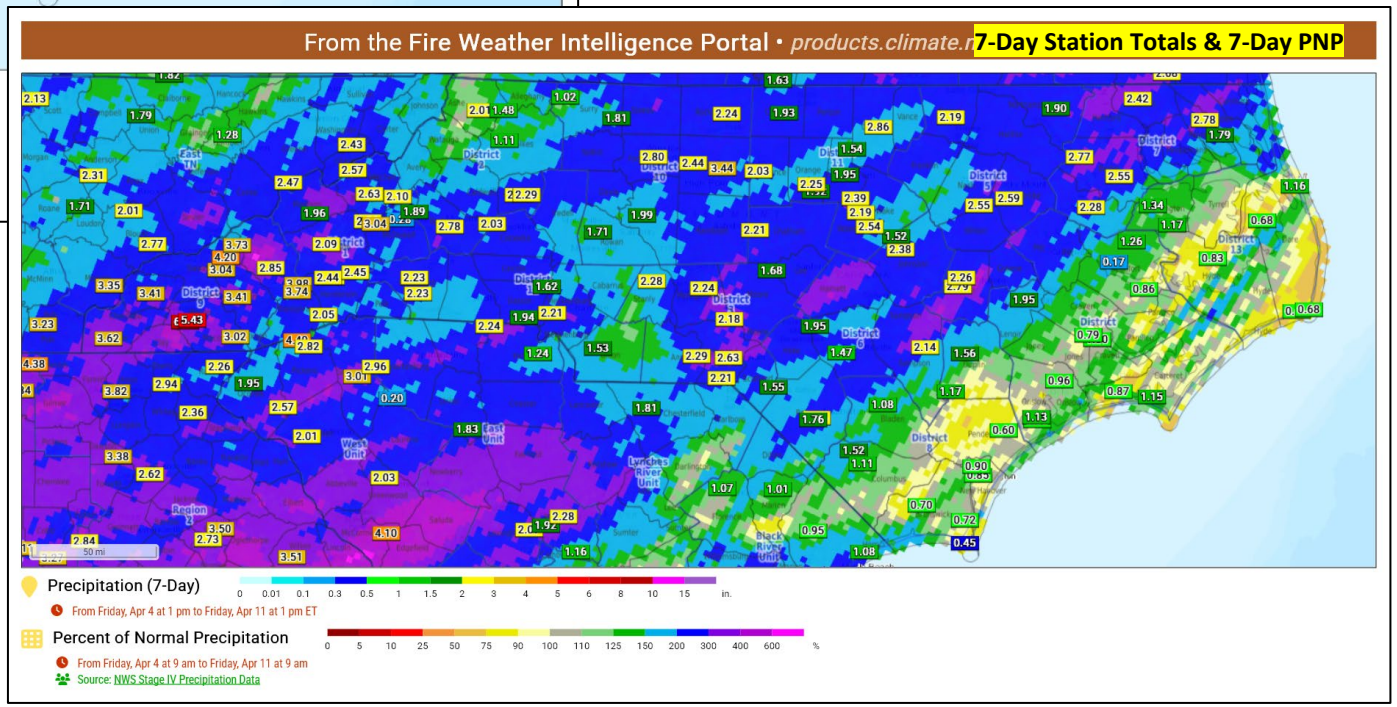


Days since ≥ 0.50” Precip Event
Some of East at 24+ days

Note very high EDDI values for parts of NC, at one- and two-month timescales for period ending on 4/5.

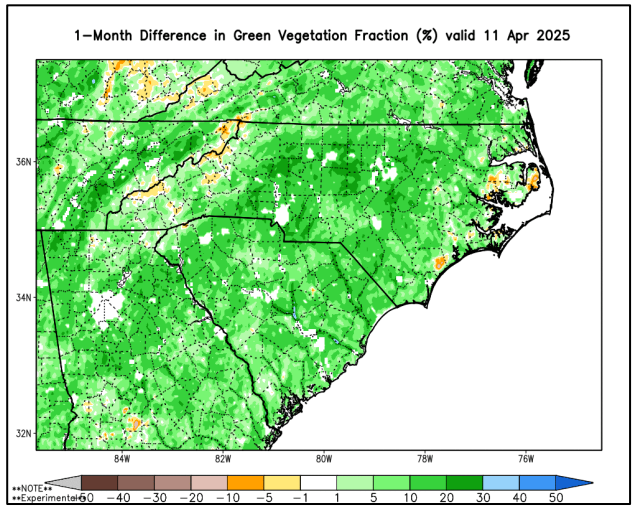




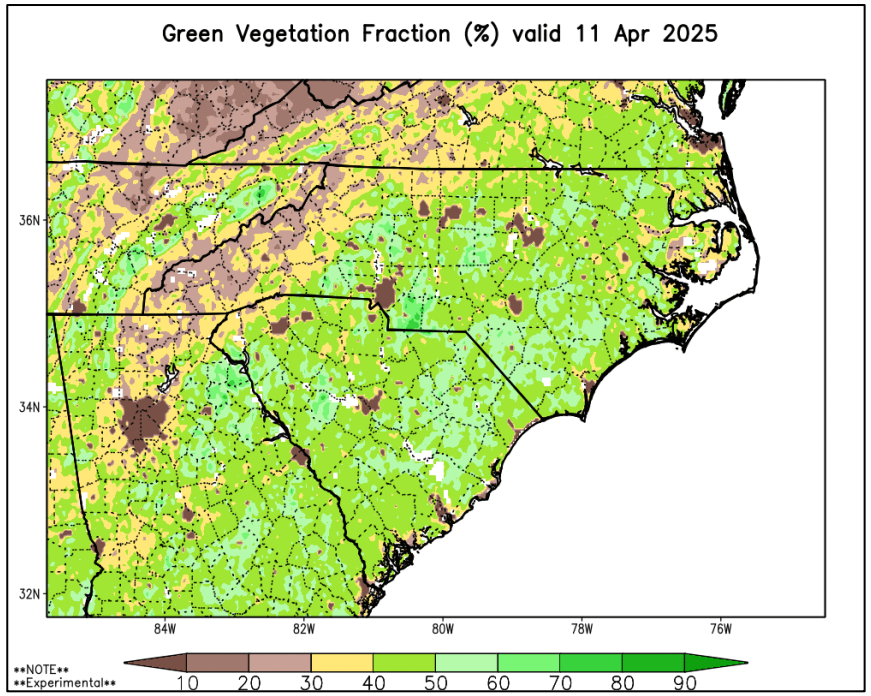


Green Fraction & Green-Up Anomaly

1-Mo Change

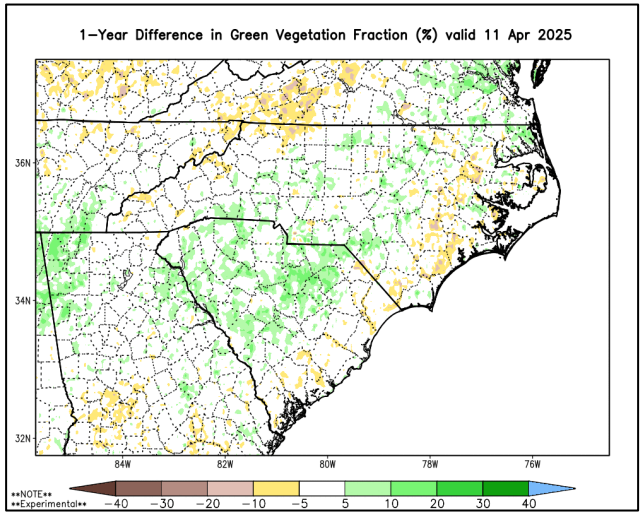


Current



Link: https://weather.ndc.nasa.gov/sport/case_studies/lis_NC.html

1 Year Change



Greenup processes accelerating with warming soils, air temps and recent soaking rains west. However, available soil water will quickly become limiting without adequate, repeated wetting events.

Forest leaf-out traditionally varies by species (early vs late), soil moisture regime, and elevation across the landscape.

From R3 Staff (western region):

- Cool season grasses are near peak greenness
- Areas of invasive plant species are green enough to slow/limit fire spread at elevations below 2,500’
- Elevations below 2,000’ are showing 50-70% green up, most tree species are producing shade to the forest floor.
- Elevations between 2,000’-3,000’ are showing 25-35% green up, consisting mostly of yellow-poplar and black cherry. Oaks will likely start leafing out in the next week.
- Elevations above 3,000’ green up is just beginning and affects will be negligible.

https://www.drought.gov/data-maps-tools/evaporative-demand-drought-index-eddi-subseasonal-forecasts

North Carolina Drought Update

Created By: North Carolina Drought Management Advisory Council — www.ncdrought.org | NC CLIMATE OFFICE — climate.ncsu.edu | NC STATE — @NCSCO

For the assessment period ending **Apr. 8, 2025**

From the US Drought Monitor, with input from the NC DMAC

The Main Takeaway

Widespread rain across the state on Monday helped improve areas of Moderate Drought (D1) in western, central, and eastern NC to just Abnormally Dry (D0).

This Week's Summary

On the heels last week's hot weather, Monday's rain event was just what we needed to recharge streams and soils, and chip away at ongoing rainfall deficits. The southern Mountains saw the highest totals – from 2 to 6 inches in most areas – but almost everywhere saw at least an inch, which helped tamp down wildfires and boost topsoil moisture for newly planted crops.

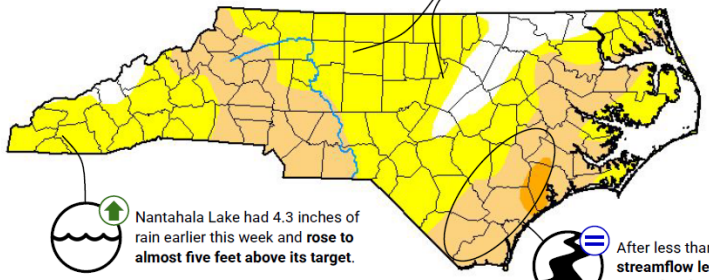
Next Week's Outlook

A low pressure system will bring statewide rain on Friday, with expected totals of a quarter inch or less in the south and around an inch along the Virginia border.

For your local drought status, visit **www.ncdrought.org**

Warm weather and recent rain have helped green-up progress, but **Wednesday morning's freeze could be a setback** in some areas.

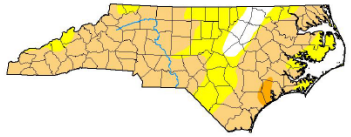
Greensboro and Raleigh each totaled 1.62 inches last weekend, putting them slightly above their normal rainfall over the past two months.



Nantahala Lake had 4.3 inches of rain earlier this week and **rose to almost five feet above its target**.

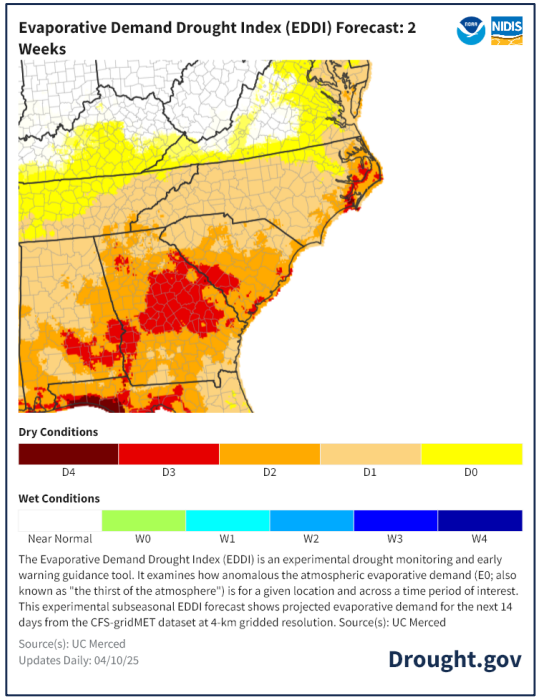
After less than an inch of rain Monday, **streamflow levels remain below normal** in the southern Coastal Plain.

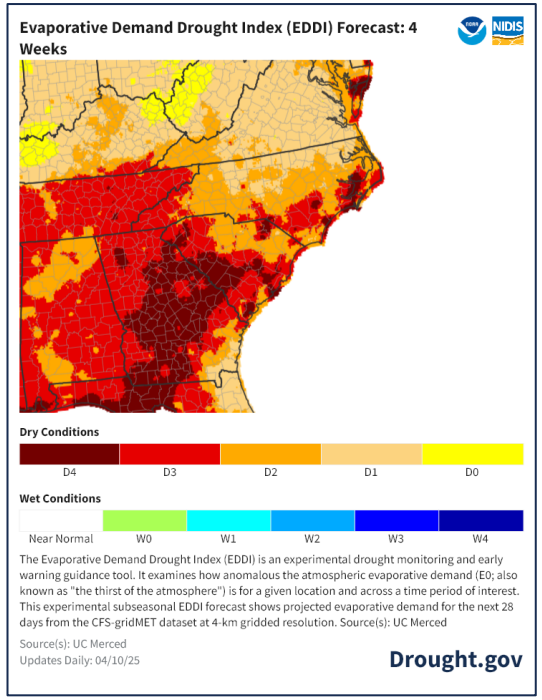
Last Week's Drought Status



Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	56.18%	+30.53%
D1: Moderate Drought	33.44%	-34.43%
D2: Severe Drought	1.34%	0.00%
D3: Extreme Drought	0.00%	0.00%
D4: Exceptional Drought	0.00%	0.00%



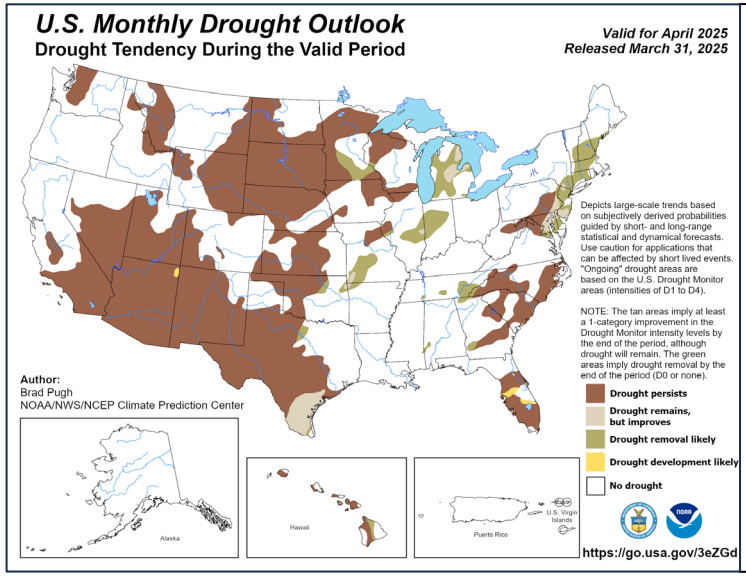


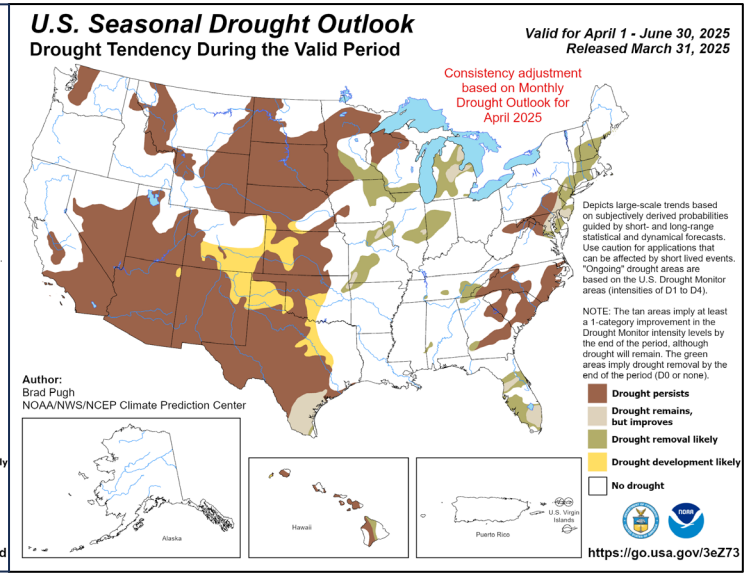
EDDI & Drought

EDDI Maps - The EDDI maps at the top right illustrate modeled evaporative demand at the two-week and four-week avg level. They represent influence of warmer conditions and enhanced evaporative demand expected over the next several weeks. Warmth and dry air accelerates this index (Spring Weather).

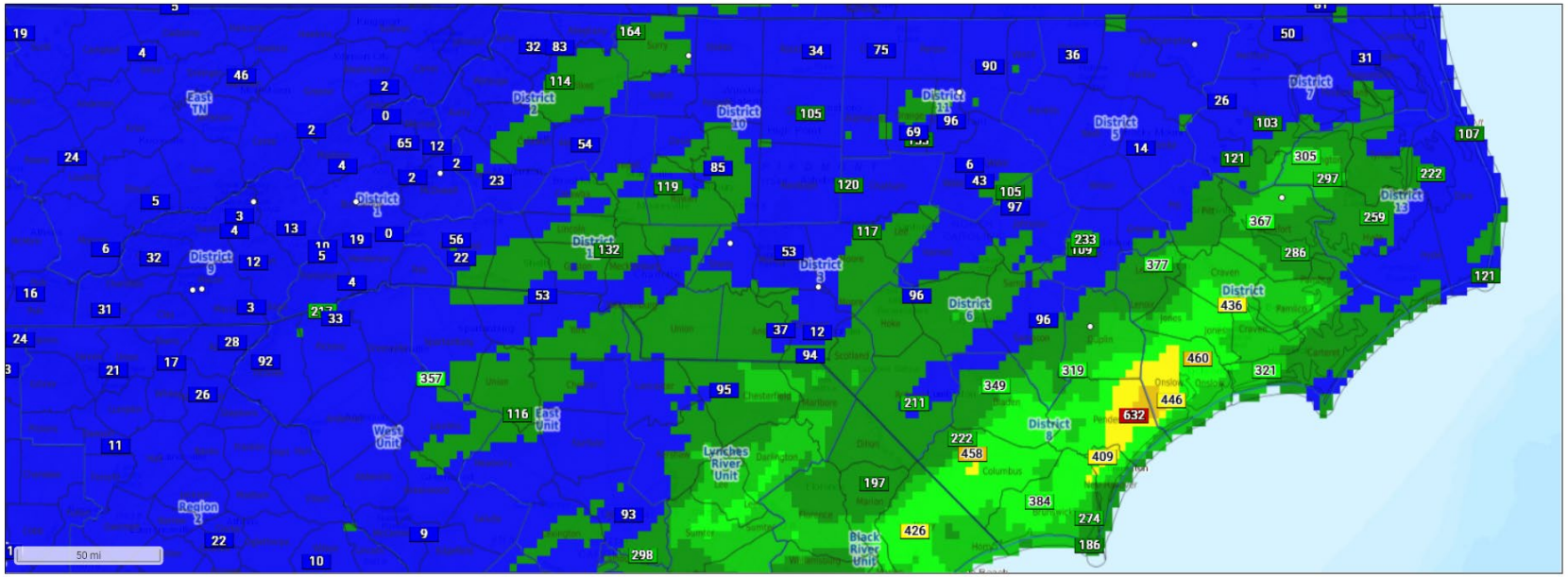
US Drought Monitor – USDM map released last week, note D1 & D2 areas

US Monthly & Seasonal Drought Outlook - shown at right. See detailed state/regional discussions here. *All of this is dependent upon any future storm tracks and likely seasonal variability we begin to experience moving to summer.*



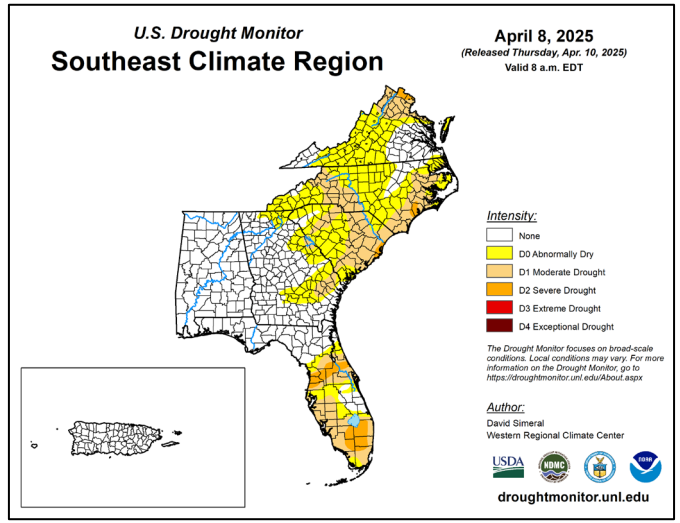


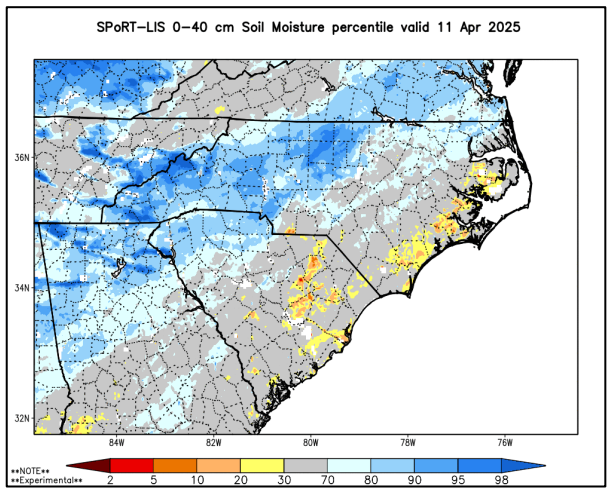
From the Fire Weather Intelligence Portal • *products.climate.ncsu.edu/fire*



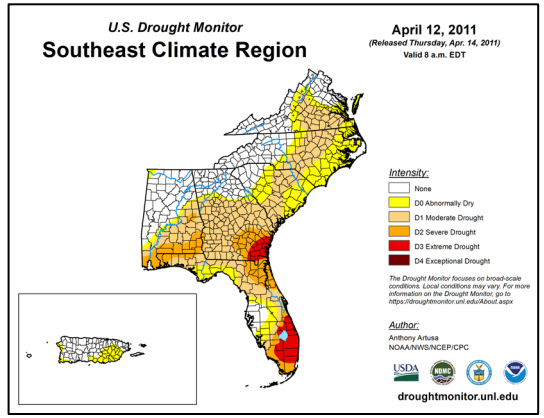
- KBDIs increasing more rapidly with warmer temps.
- Note modeled improvements to profile from 0-16 inches (bottom left).
- USDM Map comparison – 2011, 2017, 2018, 2025.

Current

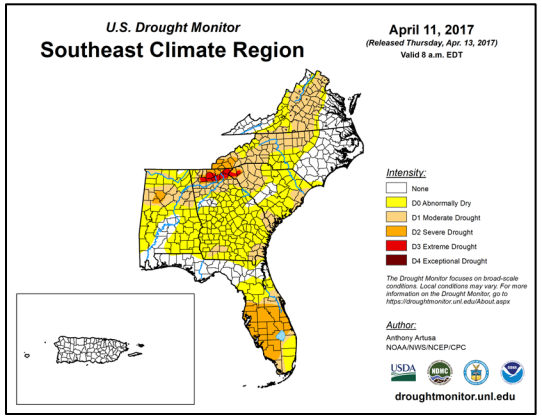




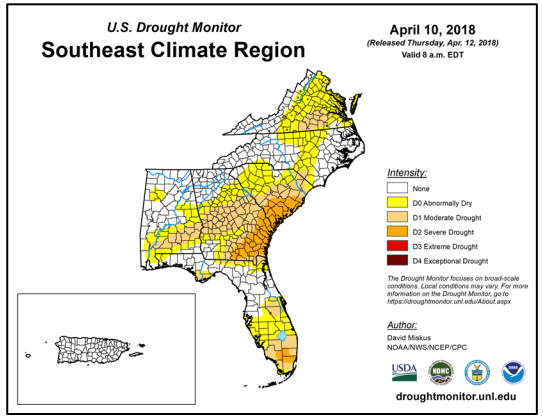
2011



2017



2018

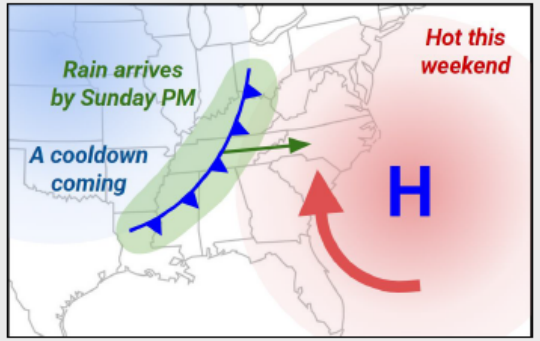


State Climate Office: Short-Range Monthly Outlook for NC

Released 4/3/25 & Location:
https://climate.ncsu.edu/fire/outlooks/

Short-Range Outlook for North Carolina

Week 1: April 3 to 9, 2025



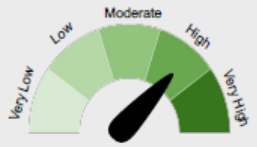
Hot, then Cold

Warm air surging northward across our state will see high temperatures approach 90 degrees from Friday through the weekend. However, a cold front moving in on Sunday night will bring a big cooldown, with temperatures near freezing on Wednesday morning.

Statewide Rain on Monday

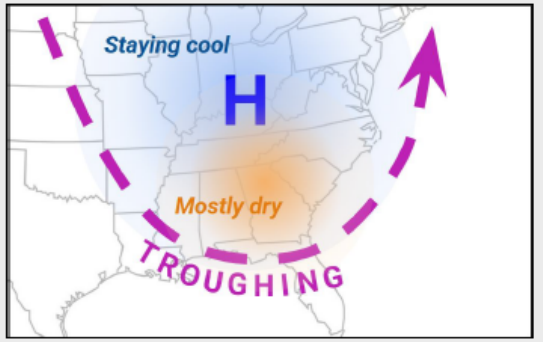
Aside from scattered showers on Thursday, it will be a dry start to the week. Our best rain chances will come with the cold frontal passage Sunday night into Monday. Totals should range from a half inch to 2 inches, with gusty winds possible on Sunday too.

Forecast Confidence



Major models are in good agreement about the timing of the cold frontal passage early Monday and average rain amounts near an inch.

Week 2: April 10 to 16, 2025



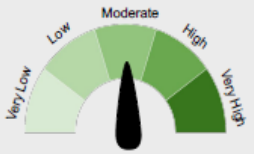
A Cooler Week

With jet stream troughing over the eastern half of the country and Canadian high pressure diving south, we'll remain in a cool pattern through the middle of the month, with temperatures possibly moderating back to near-normal levels by the end of this week.

Likely Dry This Week

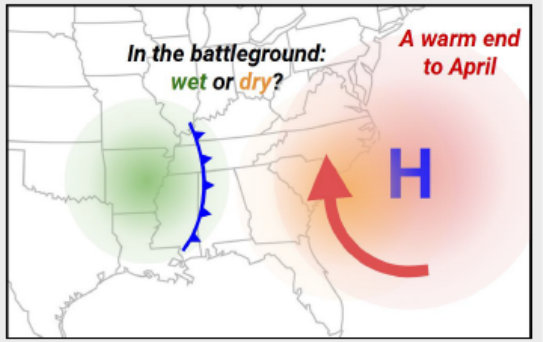
The week may begin with some rain next Thursday as a low pressure system passes through, but as high pressure builds in, we'll see a drier pattern in place for much of the week. Some models hint at a possible offshore low developing later in the week.

Forecast Confidence



Support is strong for overall cooler weather this week, but less clear about how long it will last and how the pattern will then evolve.

Weeks 3-4: April 17 to 30, 2025



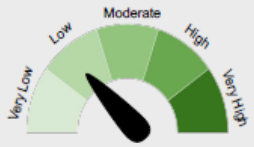
Warmth Settles In

The return of offshore high-pressure – a late spring and summer staple – should spell warm and humid weather for most of late April. Our normal highs at this time of year are in the mid-70s with lows in the 50s, well past our average last spring freeze date.

An Uncertain Outlook

Offshore high pressure should usher in moisture to fuel pop-up showers, but it could act as a roadblock to frontal systems that might bring more widespread rain. That makes our late-month precip. outlook a toss-up between being wet, dry, or near normal.

Forecast Confidence



There's better confidence in warmer temperatures, but limited useful guidance on how frequent April showers will be later this month.

This infographic is based on forecast and outlook guidance from the National Weather Service. For more information, visit **www.weather.gov**.

Author: Corey Davis (NCSCO)
cndavis@ncsu.edu

NORTH CAROLINA CLIMATEOFFICE

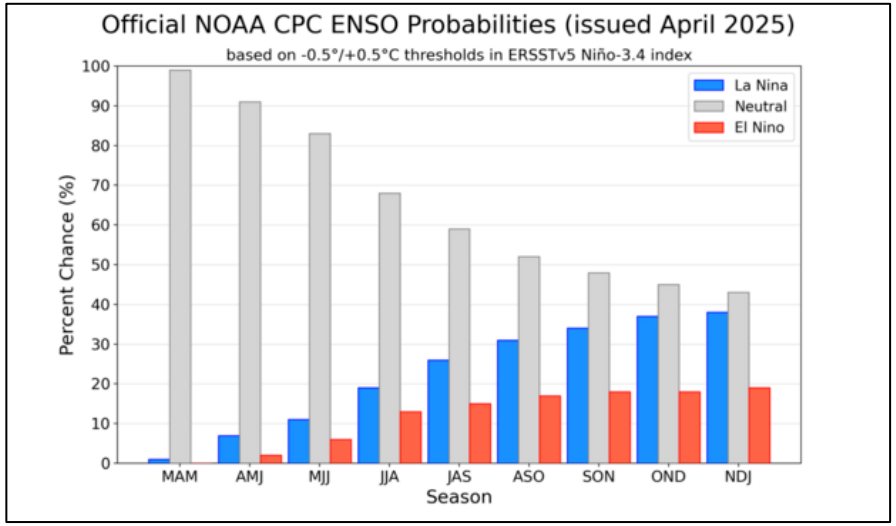
Supported by:

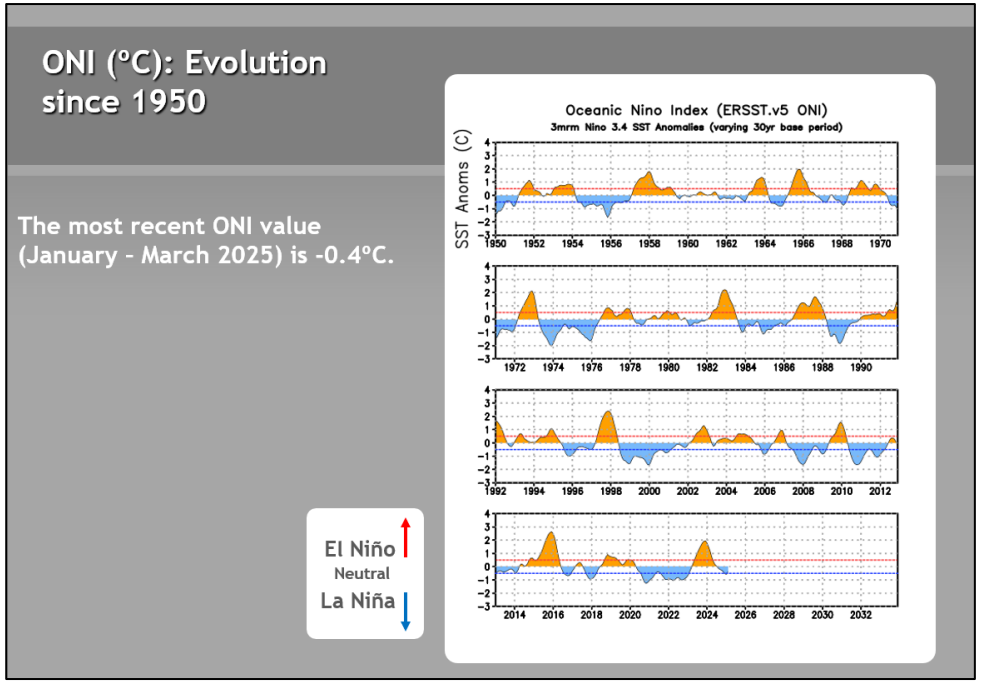
ENSO Notes from the CPC (4/10/25 Update)

ENSO Alert System Status: **Final La Niña Advisory**

ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025.

ENSO, or El Nino Southern Oscillation, is a fluctuation in the sea surface temperature (SST) in the equatorial Pacific Ocean. Research has shown that even slight changes in the SST, particularly in area 3.4, can influence weather in North America. Generally, when SSTs are lower than normal, known as La Nina, NC has drier than normal conditions and can have more fire occurrence. However, La Nina also can lead to more tropical activity. El Nino, on the other hand, usually means wetter weather for NC, but less opportunity for tropical landfalls due to increased wind shear. In order to declare a La Nina, the departure from average SST must be at least -0.5° C (line shown in green) for 3 consecutive months. For El Nino, the departure must be at least 0.5° C above average for 3 consecutive months.





From the most recent CPC Diagnostic Discussion (ENSO Diagnostics Discussion):

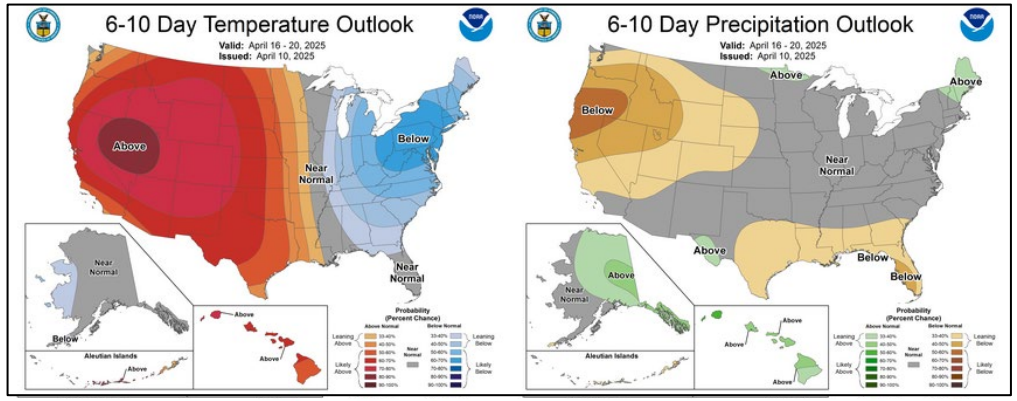
The IRI and North American multi-model ensemble indicate ENSO-neutral will continue through the summer [Fig. 6]. The forecast team also favors ENSO-neutral, with chances well over 50% through summer 2025. Because of reduced forecast accuracy in the spring, the uncertainty increases at longer time horizons, with a 43% chance of ENSO-neutral and a 38% chance of La Niña during November 2025 - January 2026 (chances of El Niño are under 20%). In summary, ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025 [Fig. 7].

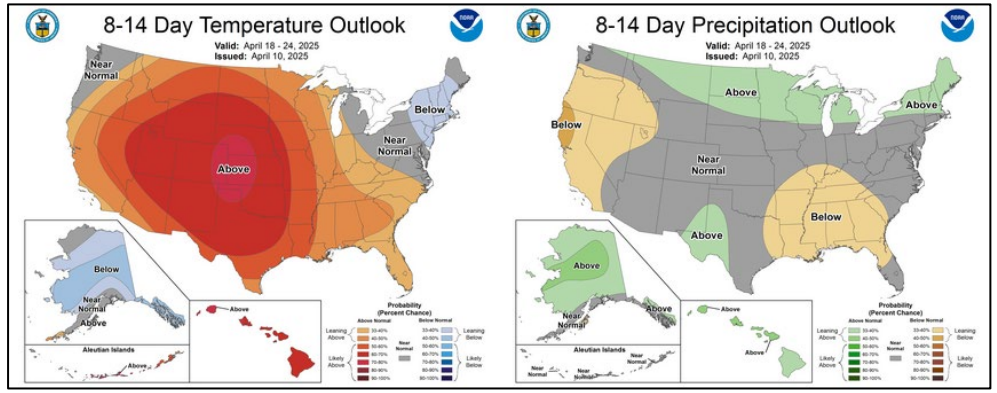
See this link for further discussion: https://www.climate.gov/news-features/blogs/enso/april-2025-enso-update-la-nina-has-ended

Slide Source: *https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt*

Temp & Precip Outlook

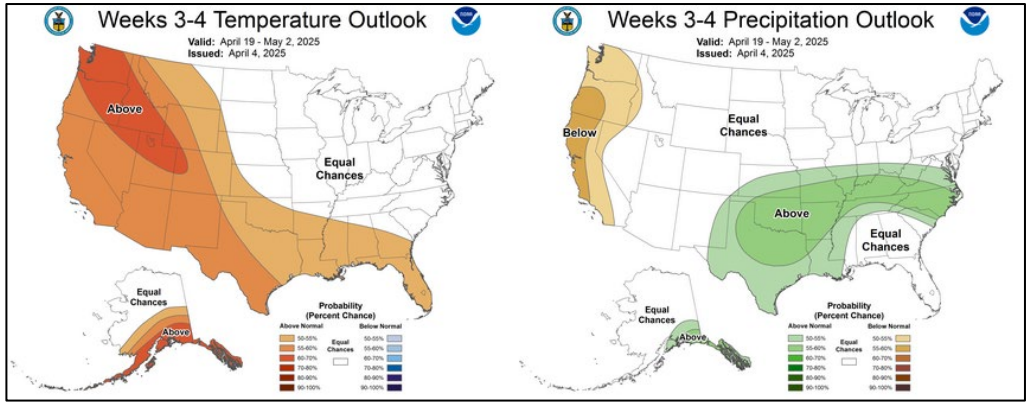
6-10 Day, 8-14 Day, Weeks 3-4 *(from 4/4)*, & Seasonal (May-June-July)

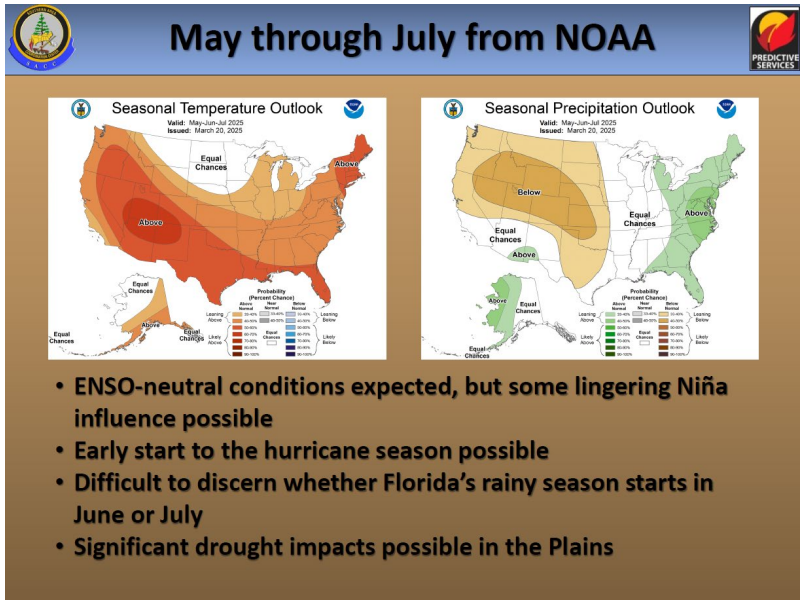




Source: https://www.cpc.ncep.noaa.gov/

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus05.html

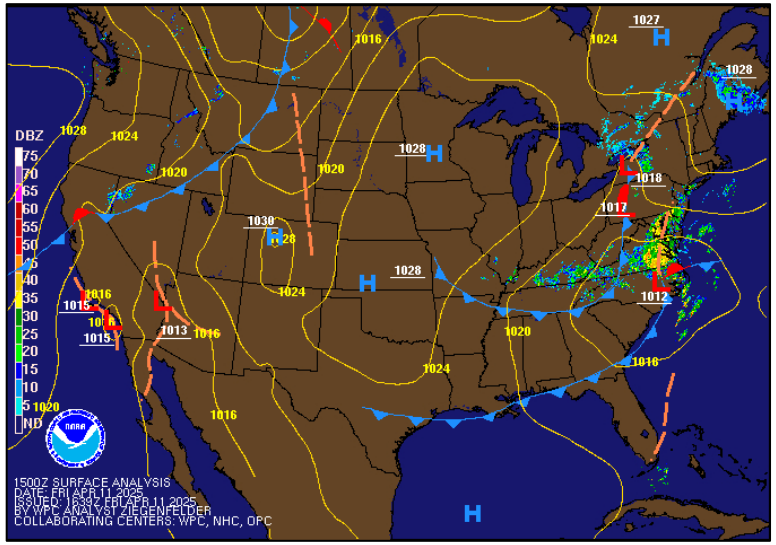




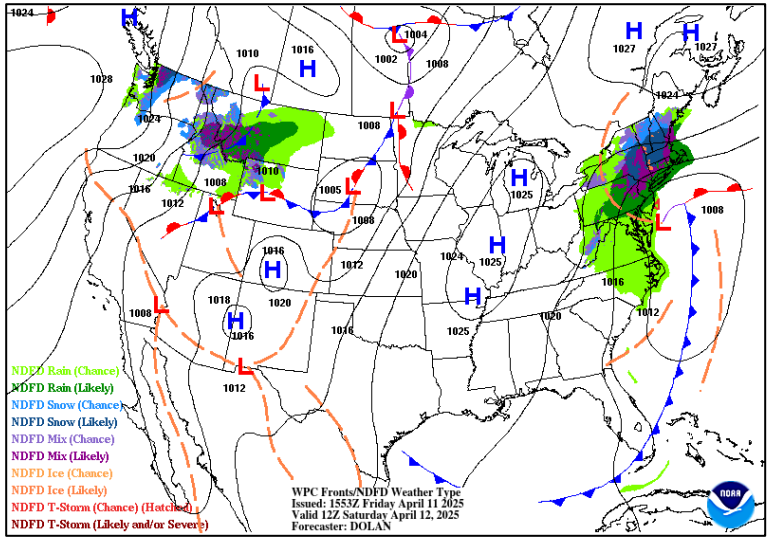
SACC Monthly Briefing Slide:

WPC Forecasted Surface Fronts & Sea-Level Pressures

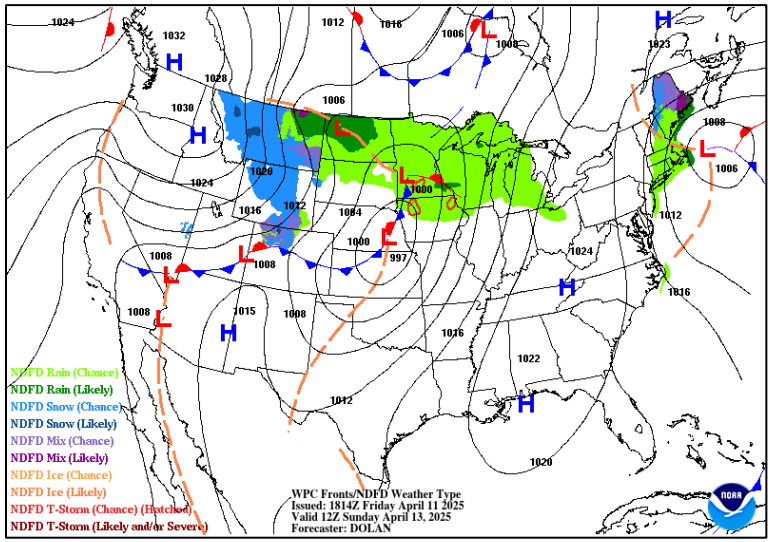
Day-1 @ 15Z Surface Analysis



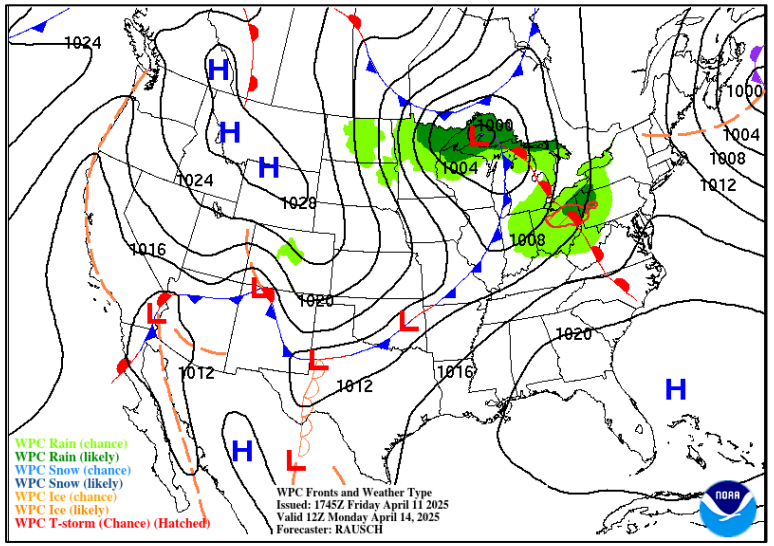
Day 2 - @ 12Z (0800 EDT)



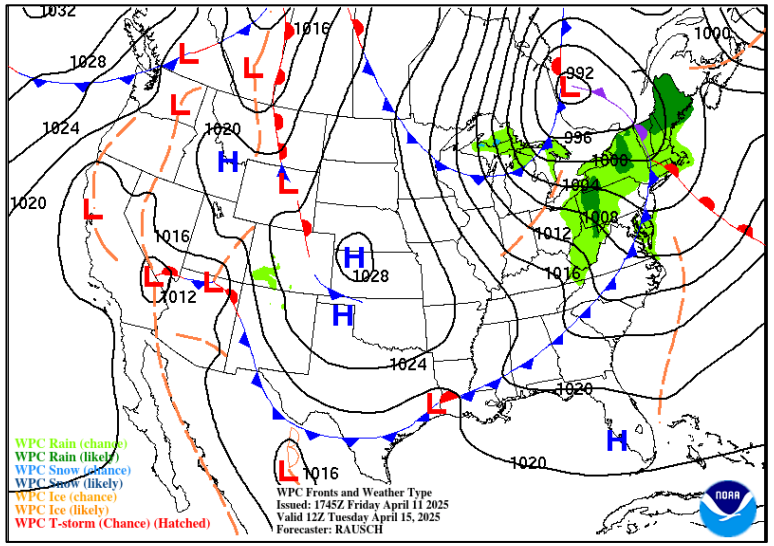
Day 3 @ 12Z (0800 EDT)



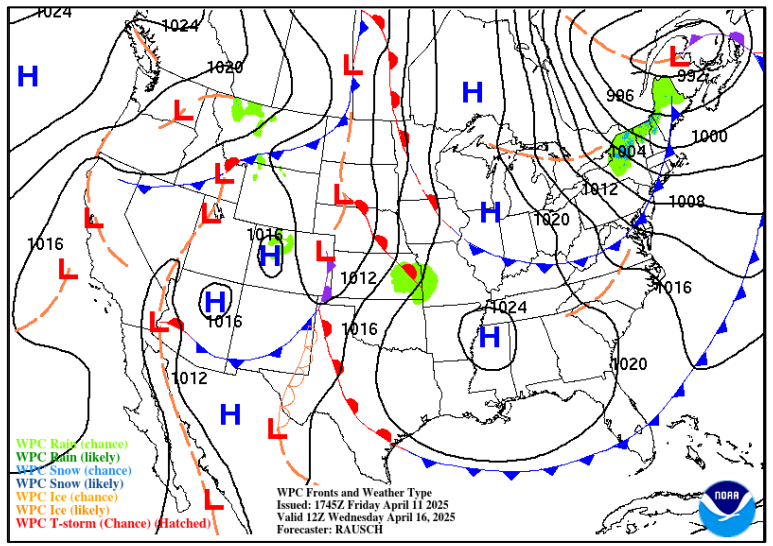
Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)



Day 6 @ 12Z (0800 EDT)

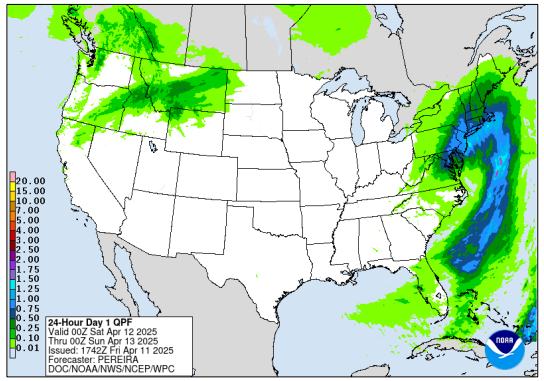


Location: https://www.wpc.ncep.noaa.gov/#

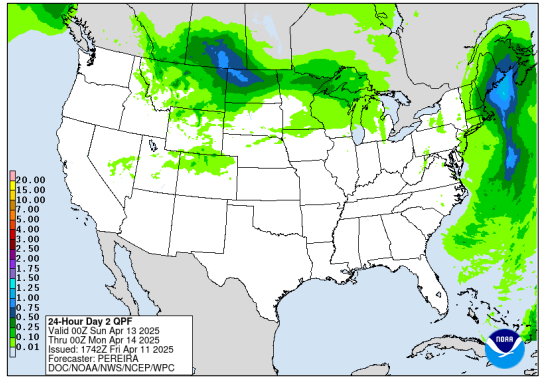
Quantitative Precipitation Forecast, 7-Day

Location: https://www.wpc.ncep.noaa.gov/#

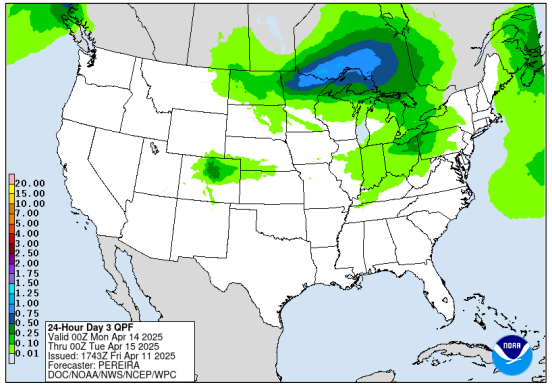
Day – 1



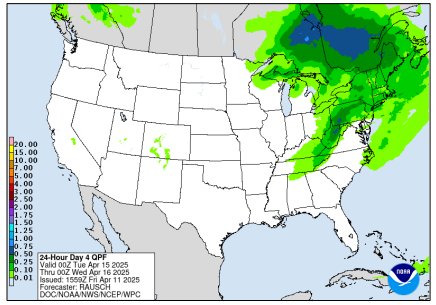
Day - 2



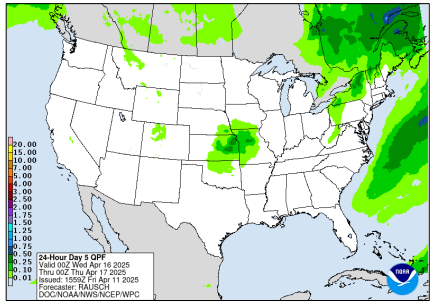
Day - 3



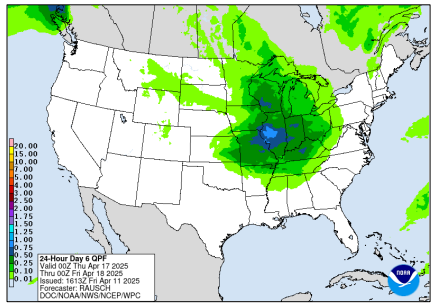
Day - 4



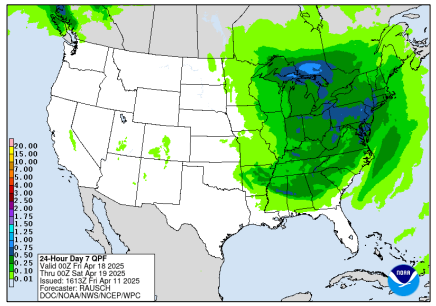
Day - 5



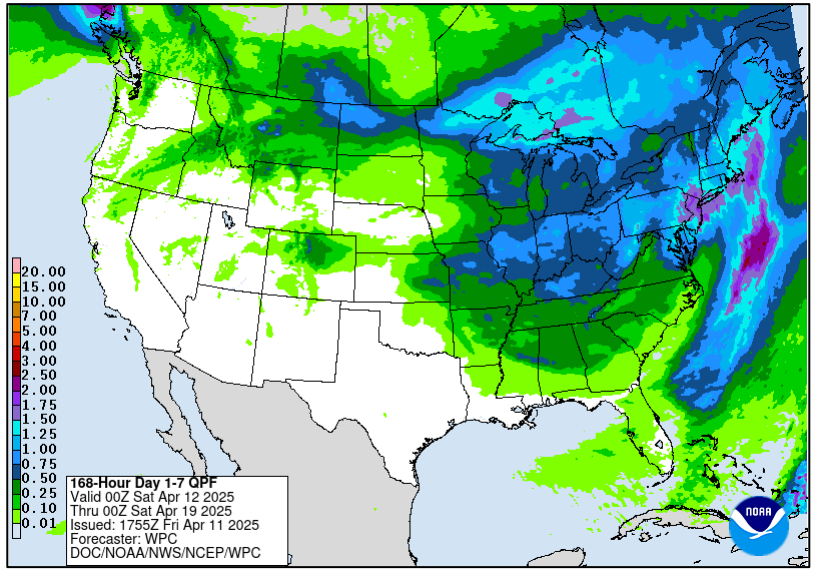
Day - 6



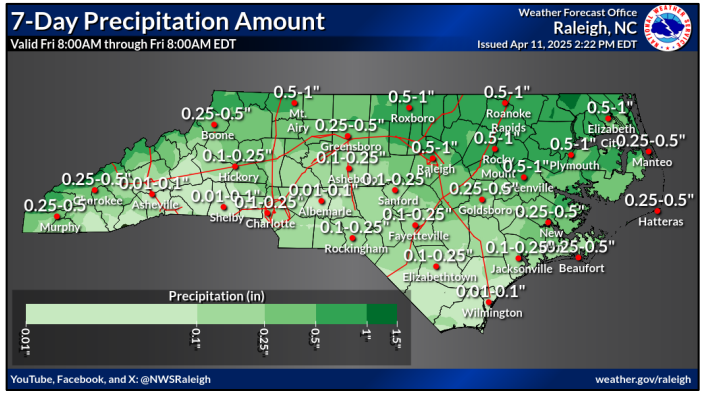
Day - 7



Days 1 – 7 QPF



Zoom - Days 1 – 7 QPF



Subject to significant change in precip amounts farther out in time (decrease).

Drying trend through week.

NFDRS Observations from Yesterday

(Averaged for each FDRA by SIG Group & "All Days Filter")

BI/ERC/IC/SC Percentiles (%) 0 10 20 30 40 50 60 70 80 90

Fuel Moisture Percentiles (%) 0 10 20 30 40 50 60 70 80 90

Averages by FDRA

FDRA	STATION_COUNT	NFDR_DATE	BI	ERC	IC	SC	KBDI	1HR	10HR	100HR	1000HR	HRB	WOODY	TEMP	RH	WIND	PRECIP	DUR
Southern Highlands	3	2025-04-10	44.90 69.3%	22.77 71.1%	5.27 71.8%	17.30 66.7%	21.33	11.71 31.5%	15.07 20.8%	22.11 79.4%	22.16 76.3%	149.03	132.00	54.3°F	68.0%	SW 5.3 mph	0.05 in.	0.7
Central Mountains	3	2025-04-10	16.97 23.4%	8.50 24.2%	0.93 26.3%	5.47 31.7%	24.67	21.47 79.9%	16.90 42.0%	21.69 82.3%	21.33 68.1%	154.27	134.33	53.0°F	75.0%	SW 2.7 mph	0.06 in.	0.7
Northern Highlands	2	2025-04-10	12.95 22.9%	6.65 26.3%	0.55 34.2%	4.05 24.2%	51.50	22.74 78.2%	16.32 32.6%	20.78 73.3%	20.92 66.8%	155.95	144.50	46.5°F	94.5%	E 4.0 mph	0.03 in.	1.0
Blue Ridge Escarpment	3	2025-04-10	9.10 15.3%	3.90 16.8%	0.23 16.6%	4.33 16.9%	67.00	26.14 86.5%	19.82 65.0%	20.30 58.2%	21.85 78.2%	150.00	134.33	50.3°F	90.3%	ESE 2.3 mph	0.03 in.	1.0
Western Piedmont	3	2025-04-10	24.37 24.8%	13.97 23.8%	2.53 32.4%	7.00 34.2%	138.67	13.80 69.1%	18.80 70.4%	22.29 87.4%	20.04 64.0%	191.20	161.67	65.0°F	52.0%	S 5.7 mph	0.00 in.	0.0
Sandhills	3	2025-04-10	28.90 31.5%	30.87 33.4%	6.20 39.4%	5.40 47.6%	114.67	11.49 46.1%	16.53 54.1%	21.21 78.1%	20.11 64.0%	196.47	165.67	69.0°F	41.0%	S 4.7 mph	0.00 in.	0.0
Eastern Piedmont	4	2025-04-10	22.13 13.3%	15.48 19.4%	2.55 25.6%	5.00 8.9%	70.75	12.71 59.9%	15.48 33.2%	21.51 85.8%	20.39 62.9%	239.53	193.50	65.3°F	48.5%	SSW 7.0 mph	0.00 in.	0.0
Southern Coastal	7	2025-04-10	29.73 23.5%	21.16 30.3%	3.74 36.4%	7.14 17.4%	373.14	12.05 47.5%	16.96 49.3%	19.77 60.0%	21.44 64.1%	216.41	131.57	72.0°F	42.3%	SSE 3.7 mph	0.00 in.	0.0
Northern Coastal	4	2025-04-10	56.10 40.5%	31.68 46.9%	7.10 54.4%	18.83 37.5%	166.50	11.19 36.6%	14.97 34.8%	19.87 64.9%	21.19 70.2%	149.25	104.50	68.5°F	44.3%	SSE 6.5 mph	0.00 in.	0.0

NFDRS Observations for Today

(Averaged for each FDRA by SIG Group & "All Days Filter")

Averages by FDRA

FDRA	STATION_COUNT	NFDR_DATE	BI	ERC	IC	SC	KBDI	1HR	10HR	100HR	1000HR	HRB	WOODY	TEMP	RH	WIND	PRECIP	DUR
Southern Highlands	3	2025-04-11	24.07 32.9%	8.60 26.2%	1.07 27.6%	11.03 59.7%	12.67	17.50 68.8%	21.50 69.4%	21.19 69.9%	22.46 76.3%	169.83	143.00	50.0°F	67.7%	NW 6.0 mph	0.51 in.	4.7
Central Mountains	3	2025-04-11	4.20 10.2%	1.93 11.9%	0.07 15.5%	1.30 9.8%	9.33	28.04 90.5%	26.64 91.2%	21.41 73.1%	21.76 83.1%	172.63	146.67	52.3°F	76.7%	SE 1.7 mph	0.56 in.	8.0
Northern Highlands	2	2025-04-11	9.10 19.0%	2.60 18.7%	0.05 21.8%	4.30 24.2%	42.50	22.27 76.5%	24.81 86.5%	20.78 73.3%	21.29 66.8%	162.05	147.00	44.5°F	85.5%	NW 4.5 mph	0.42 in.	8.0
Blue Ridge Escarpment	3	2025-04-11	6.07 13.2%	2.40 14.0%	0.37 16.6%	2.30 12.5%	57.33	26.35 86.5%	26.06 86.7%	20.99 67.4%	21.87 78.2%	170.37	146.67	57.7°F	57.7%	WSW 7.0 mph	0.34 in.	6.0
Western Piedmont	3	2025-04-11	5.03 9.0%	2.10 9.8%	0.27 12.3%	1.77 9.4%	95.33	28.77 93.3%	29.09 94.9%	22.07 87.4%	20.71 76.6%	202.87	168.00	55.3°F	88.0%	SE 4.0 mph	0.73 in.	10.3
Sandhills	3	2025-04-11	20.73 19.0%	13.60 14.5%	1.20 15.7%	5.33 47.6%	65.00	18.45 81.4%	23.64 86.3%	20.51 78.1%	20.55 77.5%	210.17	174.67	65.0°F	59.0%	WNW 6.0 mph	1.04 in.	7.7
Eastern Piedmont	4	2025-04-11	2.25 5.7%	1.10 7.0%	0.00 10.9%	0.58 5.4%	63.00	24.53 91.1%	25.48 89.7%	20.82 78.5%	20.70 78.3%	240.95	194.25	56.8°F	90.0%	NE 3.8 mph	0.70 in.	9.3
Southern Coastal	7	2025-04-11	11.86 8.9%	5.29 9.9%	0.74 16.0%	4.29 9.3%	368.14	20.44 83.9%	25.29 88.3%	19.24 46.5%	21.51 77.3%	222.56	140.57	66.3°F	67.0%	WSW 4.0 mph	0.29 in.	5.1
Northern Coastal	4	2025-04-11	0.00 6.3%	0.00 6.8%	0.00 12.2%	0.00 5.9%	172.50	29.36 94.1%	28.83 94.9%	19.28 52.8%	21.22 70.2%	158.50	112.00	66.0°F	81.3%	SW 3.5 mph	0.11 in.	4.5

Important notes for next slide group:

A. Current ERC, KBDI, GSI, 10-Hr, 100-Hr & 1000-Hr Graphics:

- Will include all FDRAs with Next Week's Release.

B. Weekly Outlook - FDRA General Fire Danger Forecast Matrix:

- Available on the FWIP within the "Resources for NCFS" page.
- The operation link is: https://products.climate.ncsu.edu/fwip/outlook.php
- The matrix updates daily - please review the tool notes below for more details.

*Growing Season Index (GSI) is greening the live herbaceous & woody vegetation in multiple Fire Danger Rating Areas (FDRAs) within the NFDRS model. This greening directly impacts Fuel Model X outputs. Remember that it is only a model, and this Spring is not shaping up to be normal based on recent snows, freezes, rain events, extremely dry air, and warm spells relating to actual plant growth. There is variability across the landscape.

Tool Summary:

The forecast matrix was created using **standard NFDRS and weather forecast data:**

- Weather conditions and NFDRS outputs are forecasted over the next 7 days by NWS for SIG stations in each FDRA.
- Weather variable ranges and breakpoints were defined by FDRA stakeholders and relate to Pocket Card notes.
- Maximum temperatures in the Critical range are color-coded with shades of red to help visually distinguish daily variations. The brightest red color corresponds to temperatures of 100°F or greater.

Fire danger forecast indices and component values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

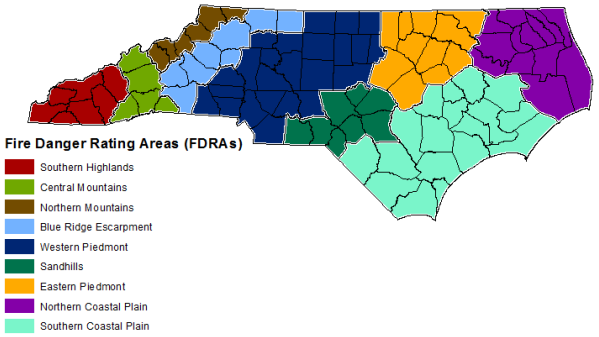
- Low to Moderate (0 to 74th percentile); shown in blue-green
- High (75th to 89th percentile); shown in yellow
- Very High to Extreme (90th+ percentile); shown in red and labeled as Critical

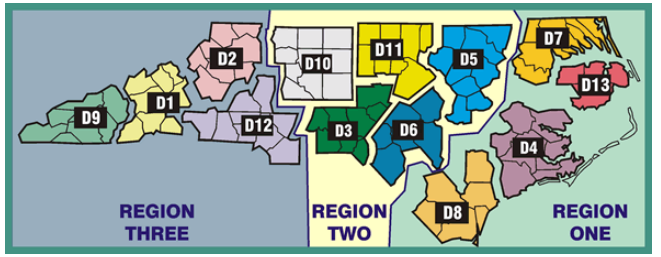
Dead fuel moisture forecast values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

- Low to Moderate (26th to 100th percentile); shown in blue-green
- High (11th to 25th percentile); shown in yellow
- Very High to Extreme (0 to 10th percentile); shown in red and labeled as Critical

Other Notes:

- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- The outlook matrix is refreshed when an FDRA is selected, using the most recent forecast data available at that time. The 7th day may drop off or display partial data prior to the afternoon/evening forecast update.
- Daily updates to NFDRS forecasts occur around **1530** daily, while general weather forecasts are updated around **1730** daily.





To reduce duplication & increase situational awareness, slides are organized by FDRA in this order:

(R3 = Region 3, R2 = Region 2, R1 = Region 1)

- Southern Highlands (R3)
- Central Mountains (R3)
- Northern Highlands (R3)
- Blue Ridge Escarpment (R2 & R3)
- Western Piedmont (R2 & R3)
- Eastern Piedmont (R2)
- Sandhills (R2)
- North Coast (R1)
- South Coast (R1 & R2)

FDRA – Southern Highlands

Weekly Outlook

Southern Highlands FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	52	54	66	77	61	60	62
Avg. Min. Humidity (%)	65	37	29	35	32	28	33
Avg. 20' Wind Speed (mph)	9	7	3	6	10	7	4
Avg. Wind Direction*	NW	NNW	WSW	WSW	WNW	NW	S
Avg. Probability of Precip. (%)	59	2	0	16	3	1	7
Days Since a Wetting Rain**	1.3	2.3	3.3	4.3			
Forecast ERC (Fuel Model X)	10.0	14.2	18.4	22.3	19.0	22.1	21.6
Forecast BI (Fuel Model X)	26.3	29.3	29.5	46.1	46.6	40.7	35.6
Forecast IC (Fuel Model X)	1.4	2.1	3.1	7.4	6.3	5.6	4.6
Forecast 100-Hr. FMC	20.5	20.0	19.1	17.6	16.7	16.3	15.8
Forecast 1000-Hr. FMC	22.3	22.3	22.3	22.4	22.4	22.2	22.0
KBDI	21.3						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

Values in the table above are averages from 3 stations in this FDRA:

- **Tusquitee** (315602)
- **Locust Gap** (315802)
- **Highlands** (315803)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 7 mph	Greater than 7 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 40	Between 40 and 52	Greater than 52
Burning Index	Less than 95	Between 95 and 118	Greater than 118
Ignition Component	Less than 9	Between 9 and 14	Greater than 14
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 345	Between 345 and 479	Greater than 479

Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

FDRA – Central Mountains

Weekly Outlook

Central Mountains FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	56	56	70	84	65	63	66
Avg. Min. Humidity (%)	66	41	28	28	28	24	30
Avg. 20' Wind Speed (mph)	9	7	3	4	9	6	4
Avg. Wind Direction*	NNW	NNW	NW	WSW	NW	NW	WSW
Avg. Probability of Precip. (%)	69	3	0	16	1	0	6
Days Since a Wetting Rain**	0.3	1.3	2.3	3.3			
Forecast ERC (Fuel Model X)	5.9	12.4	18.0	22.9	19.9	21.1	21.0
Forecast BI (Fuel Model X)	18.2	27.0	26.5	38.1	38.9	34.2	30.1
Forecast IC (Fuel Model X)	0.6	1.9	3.1	6.9	6.1	4.9	4.3
Forecast 100-Hr. FMC	23.3	23.7	22.5	19.6	17.4	16.8	16.1
Forecast 1000-Hr. FMC	21.8	21.9	22.0	22.0	22.0	22.0	22.0
KBDI	24.7						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

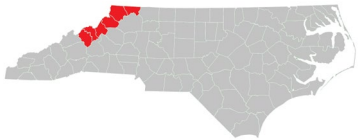
Values in the table above are averages from 3 stations in this FDRA:

- **7 Mile Ridge** (313302)
- **Davidson River** (316001)
- **Mtn Horticultural Crops Res Stn** (316141)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 10 mph	Greater than 10 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 33	Between 33 and 50	Greater than 50
Burning Index	Less than 78	Between 78 and 106	Greater than 106
Ignition Component	Less than 6	Between 6 and 11	Greater than 11
100-Hour Fuel Moisture	Greater than 19%	Between 17% and 19%	Less than 17%
1000-Hour Fuel Moisture	Greater than 20%	Between 19% and 20%	Less than 19%
KBDI	Less than 319	Between 319 and 417	Greater than 417

Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

FDRA – Northern Highlands



Weekly Outlook

Northern Highlands FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	49	51	64	77	59	57	61
Avg. Min. Humidity (%)	74	52	32	39	33	30	32
Avg. 20' Wind Speed (mph)	10	10	5	8	15	12	6
Avg. Wind Direction*	NNW	NNW	WNW	W	WNW	NW	W
Avg. Probability of Precip. (%)	78	5	4	23	8	3	13
Days Since a Wetting Rain**	0.0	1.0	2.0	3.0			
Forecast ERC (Fuel Model X)	3.6	9.6	17.9	23.2	21.4	22.7	23.7
Forecast BI (Fuel Model X)	13.6	26.6	31.9	42.3	51.4	44.5	38.8
Forecast IC (Fuel Model X)	0.4	1.6	3.2	6.7	7.0	5.5	5.0
Forecast 100-Hr. FMC	23.3	24.8	24.0	21.2	18.8	17.9	17.0
Forecast 1000-Hr. FMC	21.2	21.4	21.6	21.6	21.7	21.6	21.8
KBDI	51.5						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

Values in the table above are averages from 3 stations in this FDRA:

- **Laurel Springs** (310101)
- **Upper Mountain Research Stn** (310141)
- **Busick** (313402)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 58°F	Greater than 58°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 5 mph	Greater than 5 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 26	Between 26 and 46	Greater than 46
Burning Index	Less than 67	Between 67 and 108	Greater than 108
Ignition Component	Less than 5	Between 5 and 9	Greater than 9
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 20%	Between 19% and 20%	Less than 19%
KBDI	Less than 192	Between 192 and 330	Greater than 330

Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

FDRA – Blue Ridge Escarpment

Weekly Outlook

Blue Ridge Escarpment FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	56	57	67	81	66	64	66
Avg. Min. Humidity (%)	62	39	31	32	27	24	29
Avg. 20' Wind Speed (mph)	7	7	4	5	10	7	4
Avg. Wind Direction*	NW	NNW	WNW	WSW	WNW	WNW	W
Avg. Probability of Precip. (%)	66	4	2	13	4	2	7
Days Since a Wetting Rain**	1.3	2.3	3.3	4.3			
Forecast ERC (Fuel Model X)	6.4	16.9	22.1	25.6	27.8	27.5	25.8
Forecast BI (Fuel Model X)	17.6	36.8	35.1	51.2	65.4	45.8	39.7
Forecast IC (Fuel Model X)	0.8	3.2	3.8	7.6	10.2	6.5	5.8
Forecast 100-Hr. FMC	27.3	26.4	22.6	18.5	15.9	15.2	14.4
Forecast 1000-Hr. FMC	22.8	23.7	23.9	23.1	21.4	20.5	19.7
KBDI	67.0						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

Values in the table above are averages from 3 stations in this FDRA:

- **Rendezvous Mtn.** (312001)
- **North Cove Pinnacle (fr1)** (314301)
- **Rutherford County** (316302)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 4 mph	Greater than 4 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 52	Between 52 and 62	Greater than 62
Burning Index	Less than 116	Between 116 and 136	Greater than 136
Ignition Component	Less than 14	Between 14 and 20	Greater than 20
100-Hour Fuel Moisture	Greater than 18%	Between 16% and 18%	Less than 16%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 351	Between 351 and 508	Greater than 508

Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

FDRA – Western Piedmont

Weekly Outlook

Western Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	59	60	67	82	72	67	69
Avg. Min. Humidity (%)	73	52	37	38	32	26	30
Avg. 20' Wind Speed (mph)	6	7	4	6	9	6	3
Avg. Wind Direction*	NNW	NNW	NW	SW	W	WNW	SSW
Avg. Probability of Precip. (%)	66	14	1	2	7	1	3
Days Since a Wetting Rain**	0.0	1.0	2.0	3.0			
Forecast ERC (Fuel Model X)	8.5	12.5	15.7	16.4	19.0	20.0	19.4
Forecast BI (Fuel Model X)	15.6	22.6	20.6	25.1	31.0	27.8	21.9
Forecast IC (Fuel Model X)	1.1	1.8	2.4	3.9	5.4	4.5	3.4
Forecast 100-Hr. FMC	23.8	23.1	21.4	19.4	17.8	16.9	16.1
Forecast 1000-Hr. FMC	20.5	20.8	21.0	21.0	21.0	21.2	21.2
KBDI	138.7						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

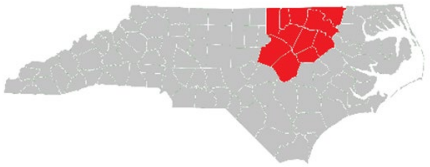
Values in the table above are averages from 3 stations in this FDRA:

- **Duke Forest** (312501)
- **Lexington** (314602)
- **Mt. Island Lake** (316602)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 4 mph	Greater than 4 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 40	Between 40 and 52	Greater than 52
Burning Index	Less than 95	Between 95 and 120	Greater than 120
Ignition Component	Less than 9	Between 9 and 14	Greater than 14
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 344	Between 344 and 479	Greater than 479

Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

FDRA – Eastern Piedmont



Weekly Outlook

Eastern Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	61	57	67	81	74	67	69
Avg. Min. Humidity (%)	73	63	41	39	39	29	31
Avg. 20' Wind Speed (mph)	7	7	4	5	9	7	3
Avg. Wind Direction*	NW	WNW	NW	SW	W	WNW	WSW
Avg. Probability of Precip. (%)	84	25	4	2	17	0	3
Days Since a Wetting Rain**	0.0	1.0	2.0	3.0			
Forecast ERC (Fuel Model X)	9.5	10.2	13.1	15.0	18.0	19.4	18.2
Forecast BI (Fuel Model X)	15.6	21.4	20.9	23.8	30.6	29.3	21.0
Forecast IC (Fuel Model X)	1.4	1.5	2.1	3.4	5.3	4.6	3.1
Forecast 100-Hr. FMC	20.8	21.5	20.9	19.5	17.9	16.8	16.0
Forecast 1000-Hr. FMC	20.7	20.9	21.0	21.1	21.1	21.1	21.1
KBDI	70.8						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

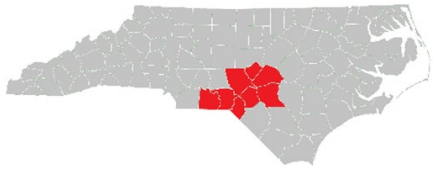
Values in the table above are averages from 4 stations in this FDRA:

- **Oxford Tobacco Research Stn** (310841)
- **Upper Coastal Plain Res Stn** (312940)
- **Lake Wheeler Rd Field Lab** (314941)
- **Central Crops Research Station** (317441)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	Between 10 mph and 15 mph	Greater than 15 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 54.2	Between 54.2 and 61.7	Greater than 61.7
Burning Index	Less than 109.3	Between 109.3 and 130.5	Greater than 130.5
Ignition Component	Less than 12.7	Between 12.7 and 16.8	Greater than 16.8
100-Hour Fuel Moisture	Greater than 17.6%	Between 16.4% and 17.6%	Less than 16.4%
1000-Hour Fuel Moisture	Greater than 18.3%	Between 17.5% and 18.3%	Less than 17.5%
KBDI	Less than 337	Between 337 and 460	Greater than 460

Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

FDRA – Sandhills



Weekly Outlook

Sandhills FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	68	61	69	83	76	69	72
Avg. Min. Humidity (%)	61	52	34	33	34	25	27
Avg. 20' Wind Speed (mph)	7	7	4	5	9	6	3
Avg. Wind Direction*	NW	NNW	NW	SW	W	NW	S
Avg. Probability of Precip. (%)	55	15	1	1	12	0	3
Days Since a Wetting Rain**	0.0	1.0	2.0	3.0			
Forecast ERC (Fuel Model Z)	27.3	31.3	35.0	38.3	45.4	48.9	49.6
Forecast BI (Fuel Model Z)	31.7	36.0	31.9	38.5	46.5	45.1	36.2
Forecast IC (Fuel Model Z)	5.2	5.1	5.6	9.5	13.8	11.8	9.1
Forecast 100-Hr. FMC	20.0	19.4	19.0	18.2	17.1	16.0	15.4
Forecast 1000-Hr. FMC	20.4	20.6	20.6	20.6	20.6	20.6	20.5
KBDI	114.7						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

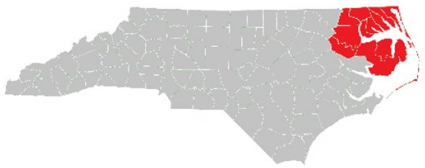
Values in the table above are averages from 3 stations in this FDRA:

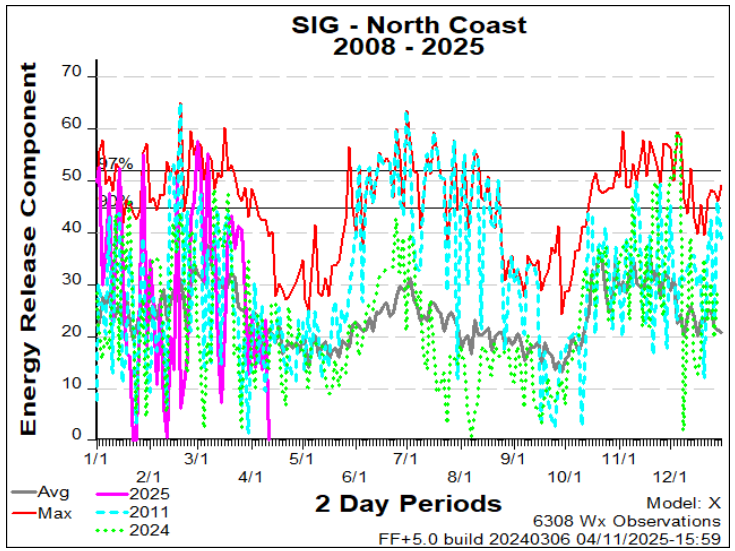
- **Sandhills Research Station** (317040)
- **Rockingham** (318202)
- **Fort Liberty** (318503)

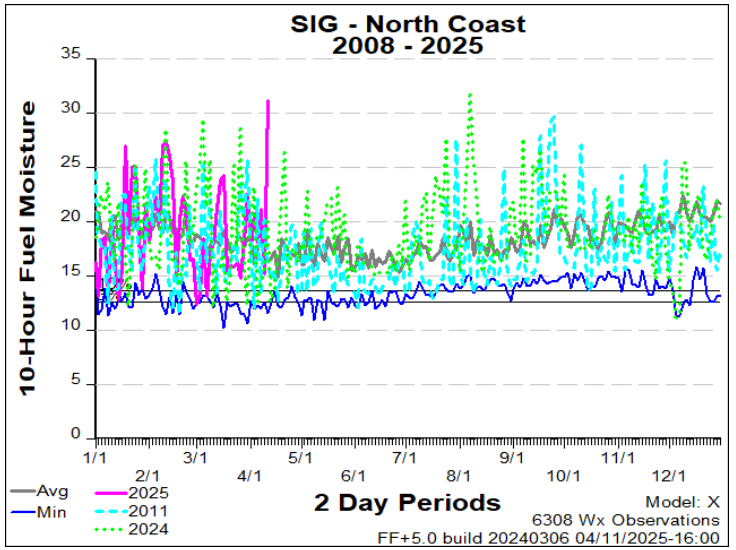
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 30% and 40%	Less than 30%
Avg. 20' Wind Speed	Less than 4 mph	Between 4 mph and 8 mph	Greater than 8 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 52.4	Between 52.4 and 62	Greater than 62
Burning Index	Less than 45.6	Between 45.6 and 53.3	Greater than 53.3
Ignition Component	Less than 13.6	Between 13.6 and 18.8	Greater than 18.8
100-Hour Fuel Moisture	Greater than 17.4%	Between 16% and 17.4%	Less than 16%
1000-Hour Fuel Moisture	Greater than 18.2%	Between 17.2% and 18.2%	Less than 17.2%
KBDI	Less than 397	Between 397 and 500	Greater than 500

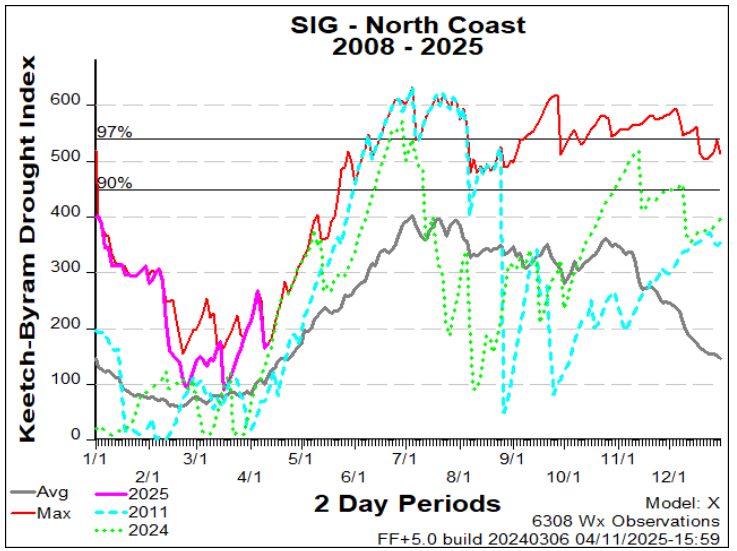
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

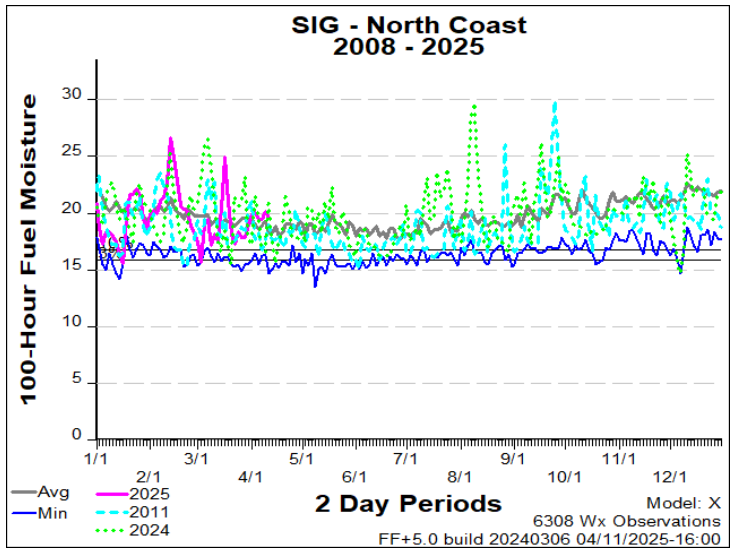
FDRA – North Coast

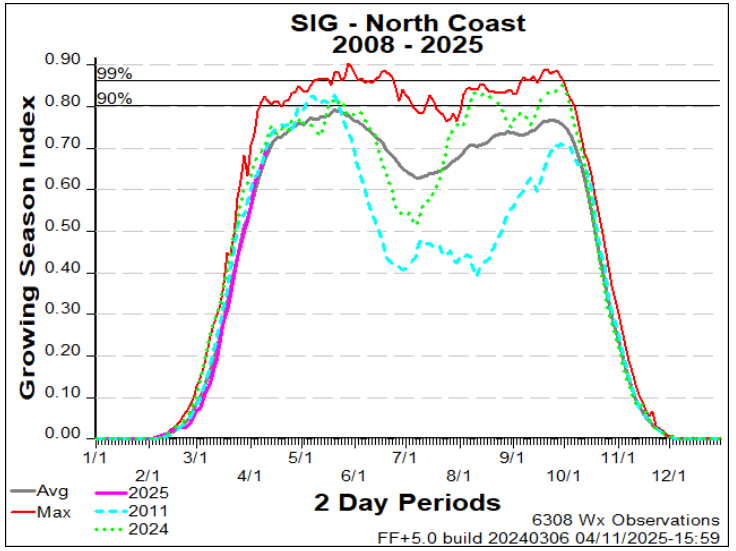


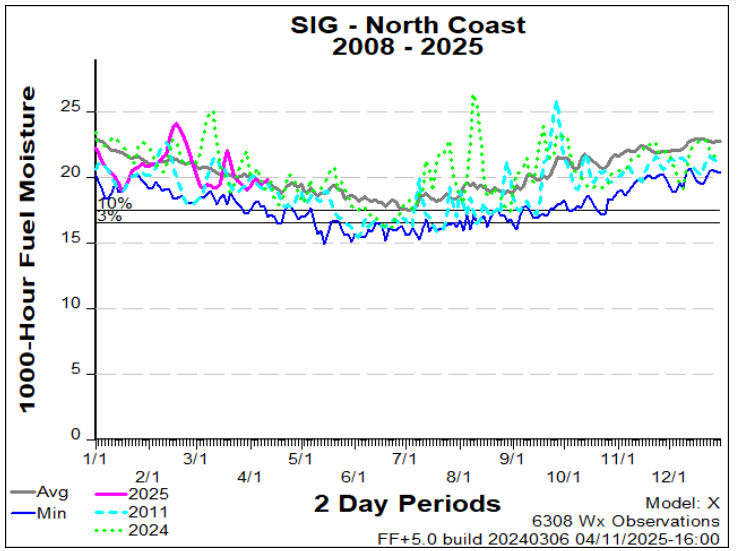






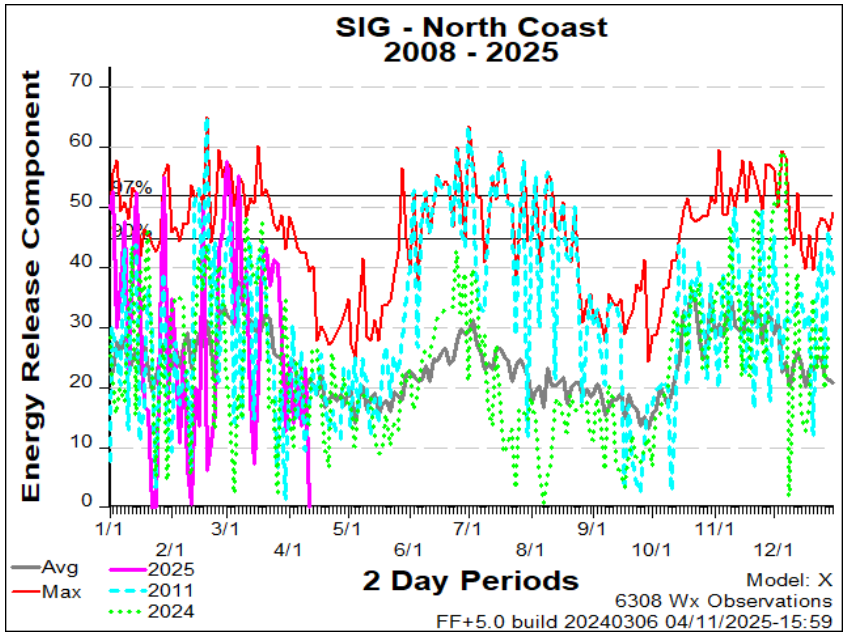




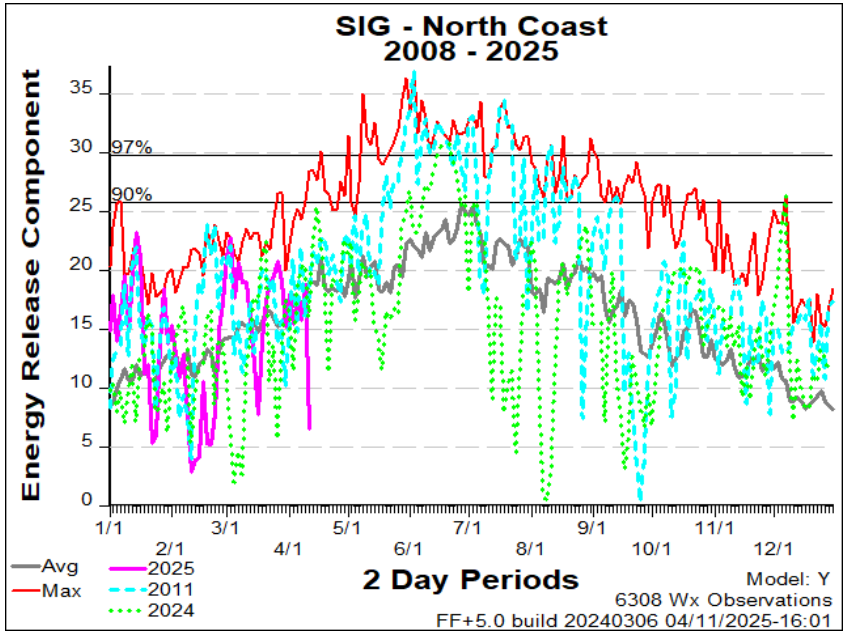


FDRA – North Coast

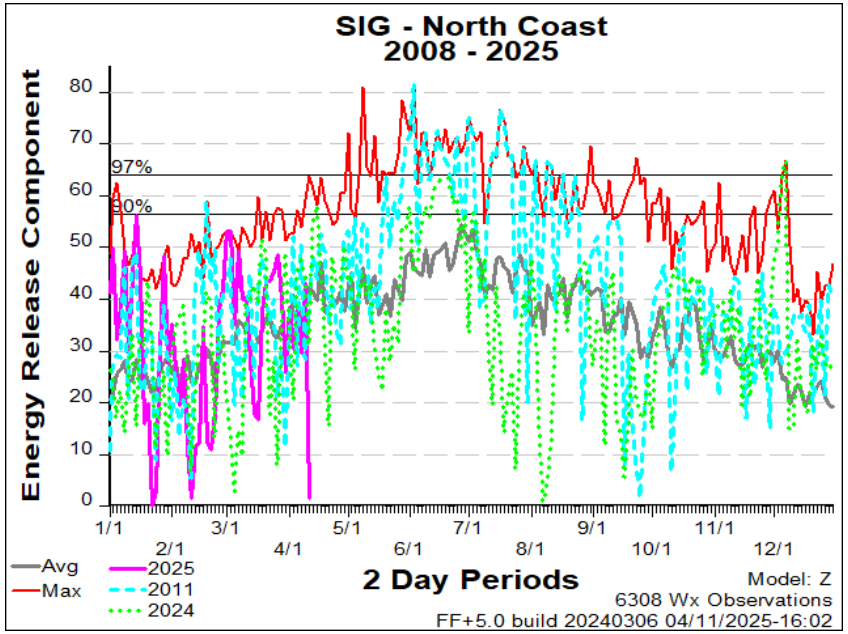
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – North Coast

Weekly Outlook

Northern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	69	57	65	79	77	67	68
Avg. Min. Humidity (%)	70	67	46	41	44	31	31
Avg. 20' Wind Speed (mph)	8	8	8	6	10	9	5
Avg. Wind Direction*	WSW	NW	NNW	SW	W	WNW	W
Avg. Probability of Precip. (%)	88	29	5	2	19	1	2
Days Since a Wetting Rain**	0.0	1.0	2.0	3.0			
Forecast ERC (Fuel Model X)	12.8	9.0	13.0	16.2	17.8	23.1	20.7
Forecast BI (Fuel Model X)	33.5	26.3	33.3	32.9	34.6	40.6	23.7
Forecast IC (Fuel Model X)	2.5	1.2	2.4	4.1	5.1	7.1	3.5
Forecast 100-Hr. FMC	19.1	19.7	20.5	19.7	18.8	17.5	16.6
Forecast 1000-Hr. FMC	21.1	21.1	21.1	21.1	21.1	21.0	21.0
KBDI	166.5						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

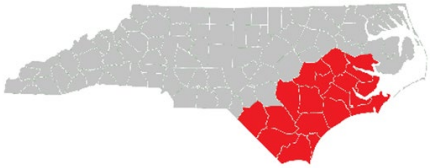
Values in the table above are averages from 4 stations in this FDRA:

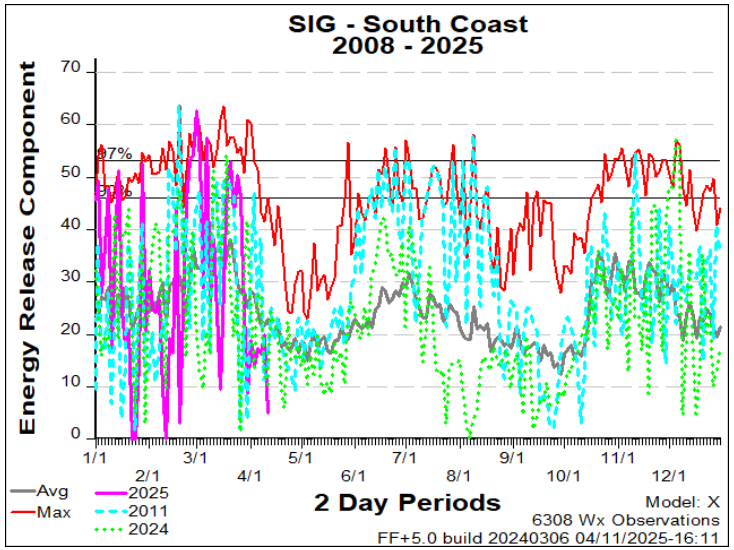
- **Elizabeth City** (311503)
- **Greens Cross** (313001)
- **Pocosin Lakes** (315201)
- **Fairfield** (317901)

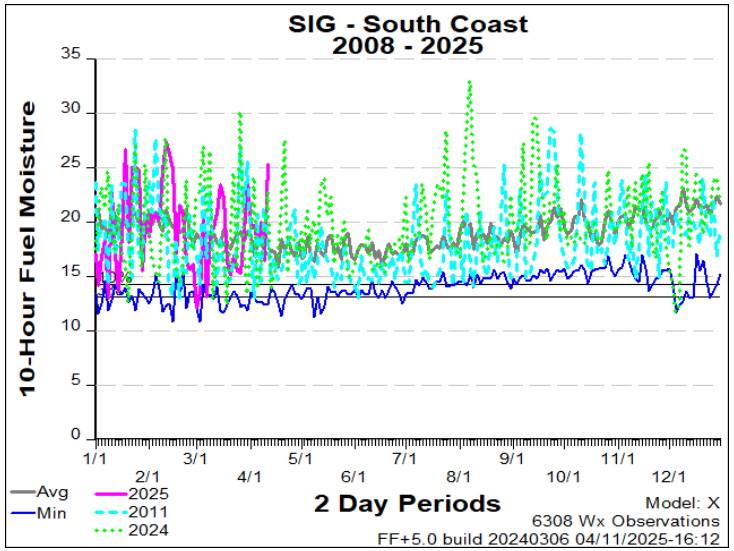
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 45°F	Between 45°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	Between 10 mph and 15 mph	Greater than 15 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 39.3	Between 39.3 and 48	Greater than 48
Burning Index	Less than 78	Between 78 and 96.8	Greater than 96.8
Ignition Component	Less than 9.3	Between 9.3 and 12.8	Greater than 12.8
100-Hour Fuel Moisture	Greater than 17.7%	Between 16.8% and 17.7%	Less than 16.8%
1000-Hour Fuel Moisture	Greater than 18.5%	Between 17.5% and 18.5%	Less than 17.5%
KBDI	Less than 365	Between 365 and 463	Greater than 463

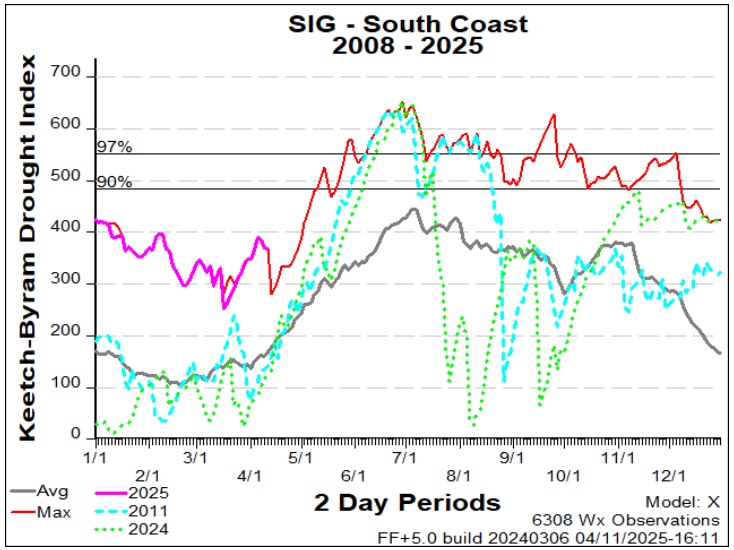
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

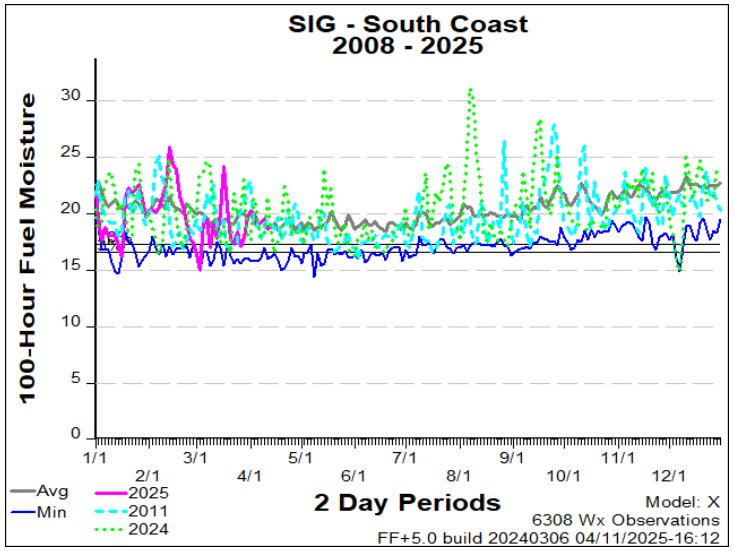
FDRA – South Coast

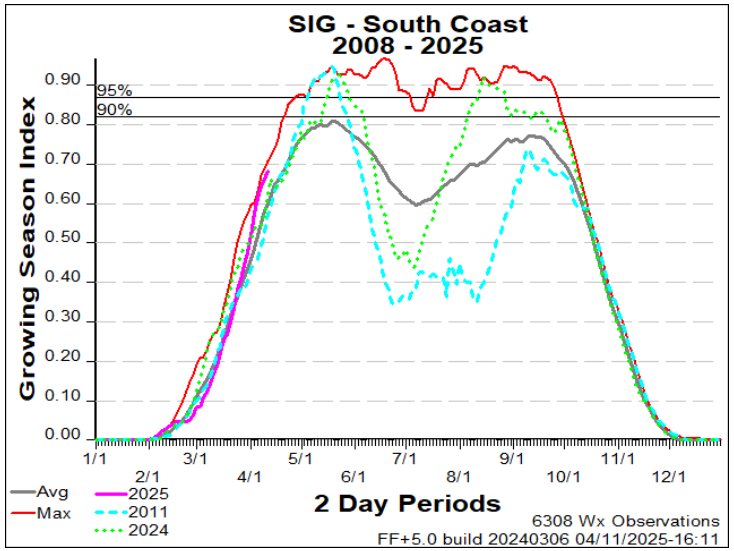


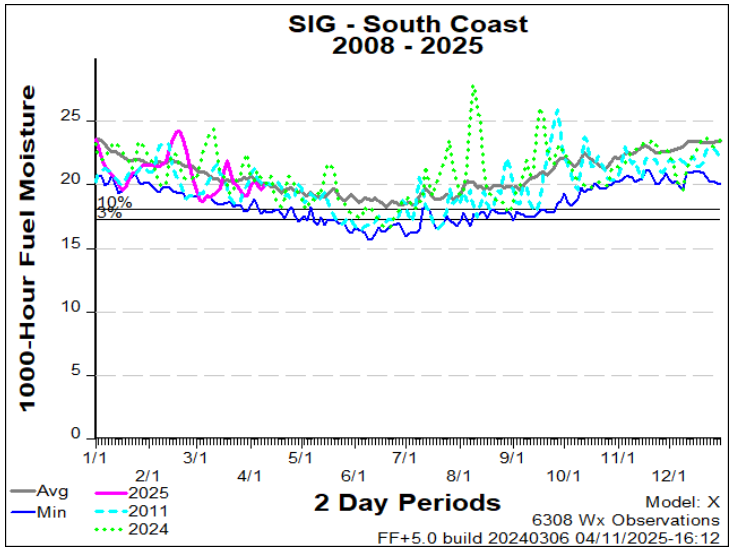






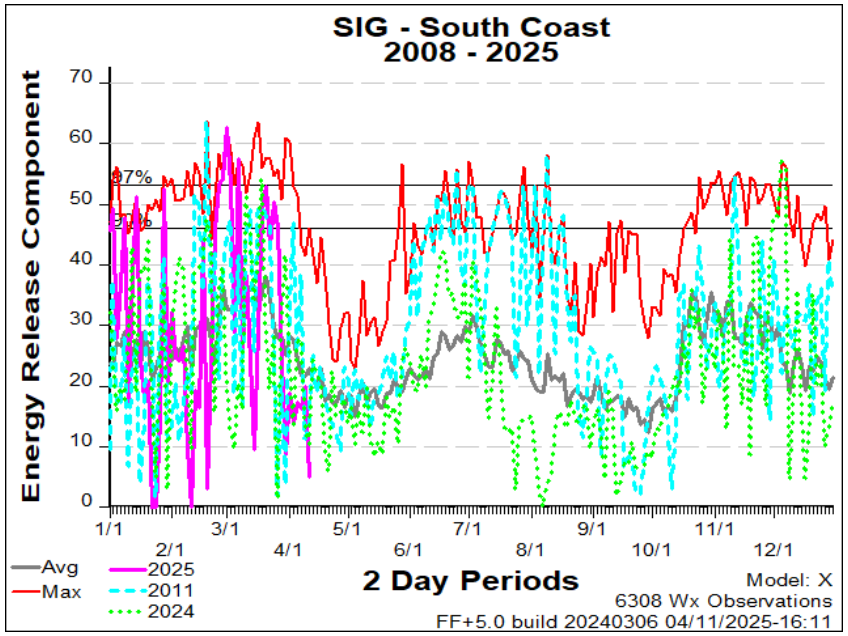




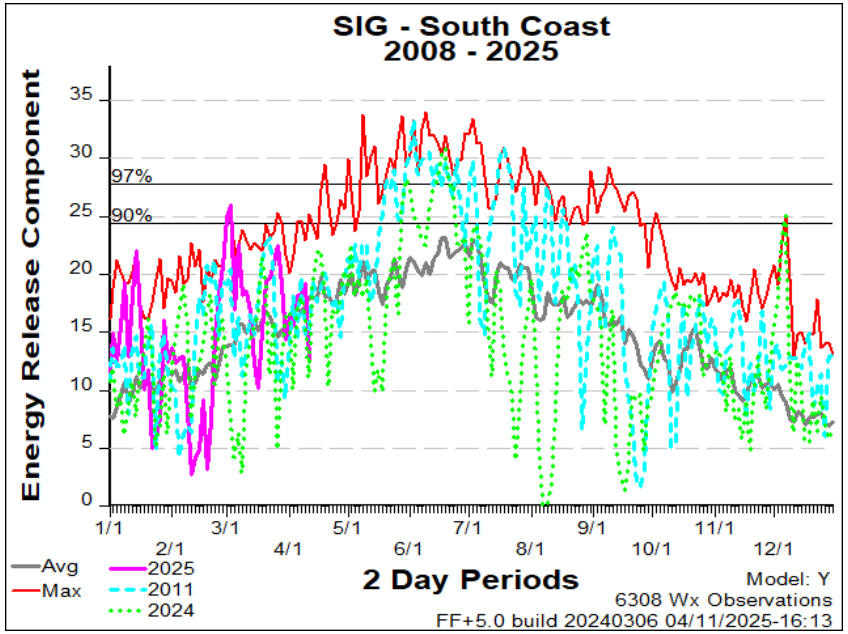


FDRA – South Coast

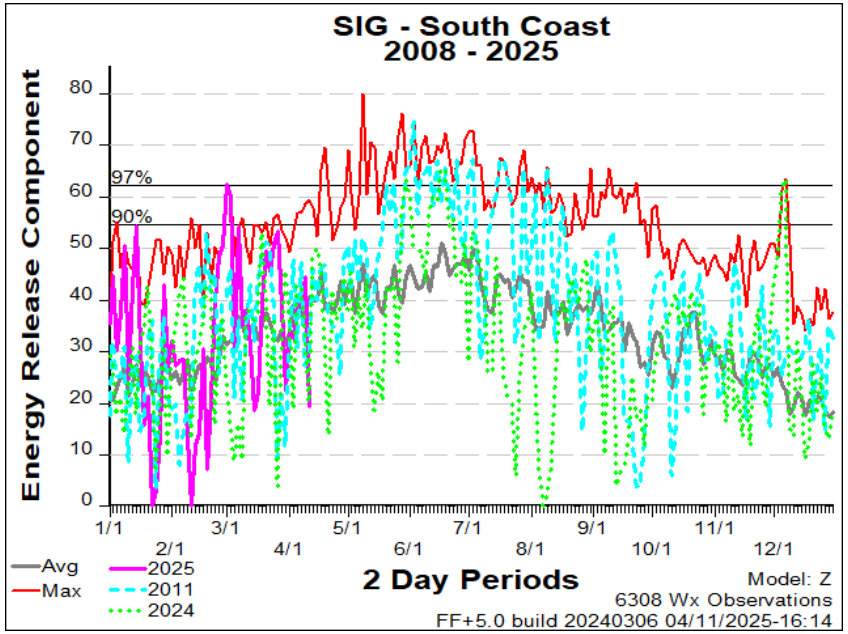
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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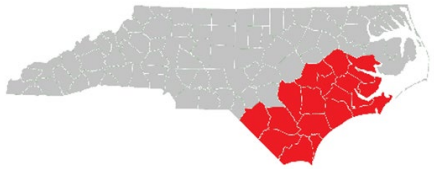
Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – South Coast



Weekly Outlook

Southern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	71	61	69	81	80	69	72
Avg. Min. Humidity (%)	54	59	40	37	40	29	31
Avg. 20' Wind Speed (mph)	6	7	5	6	9	6	4
Avg. Wind Direction*	W	NW	NW	SW	W	NW	SW
Avg. Probability of Precip. (%)	59	18	1	1	18	0	2
Days Since a Wetting Rain**	0.3	1.3	2.3	3.3			
Forecast ERC (Fuel Model X)	14.6	13.3	14.6	16.8	20.9	25.2	23.5
Forecast BI (Fuel Model X)	30.1	26.6	26.4	29.4	34.6	35.9	25.8
Forecast IC (Fuel Model X)	2.9	2.1	2.5	4.0	5.8	6.3	4.0
Forecast 100-Hr. FMC	18.8	18.6	18.6	18.3	17.6	16.5	15.7
Forecast 1000-Hr. FMC	21.4	21.3	21.3	21.2	21.1	21.0	20.9
KBDI	373.1						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

Values in the table above are averages from 7 stations in this FDRA:

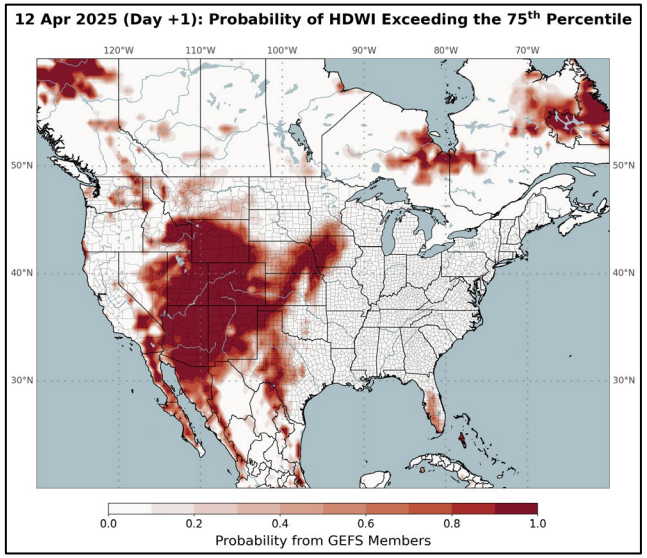
- **Finch's Station** (317501)
- **Beaufort** (317801)
- **New Bern** (319004)
- **Turnbull Creek** (319302)
- **Hofmann Forest** (319507)
- **Whiteville** (319701)
- **Sunny Point** (319803)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 65°F	Greater than 65°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 10 mph	Greater than 10 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 36.4	Between 36.4 and 47.2	Greater than 47.2
Burning Index	Less than 68.3	Between 68.3 and 89.5	Greater than 89.5
Ignition Component	Less than 7.9	Between 7.9 and 12	Greater than 12
100-Hour Fuel Moisture	Greater than 18.2%	Between 17.3% and 18.2%	Less than 17.3%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 385	Between 385 and 486	Greater than 486

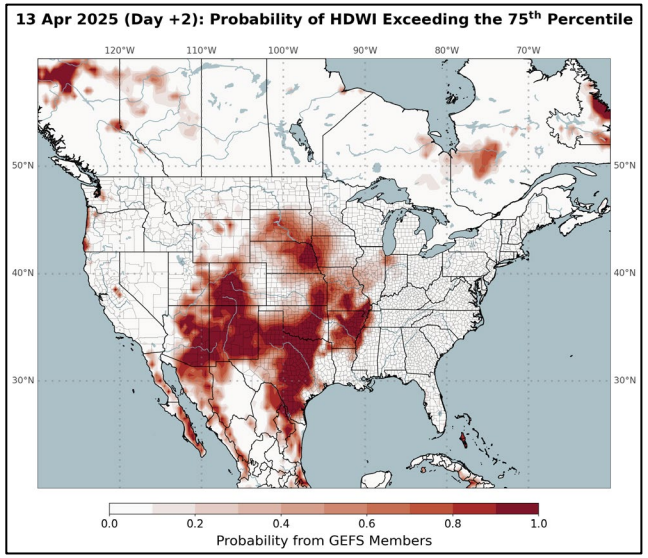
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain, and season**

Hot-Dry-Windy Index (HDW)

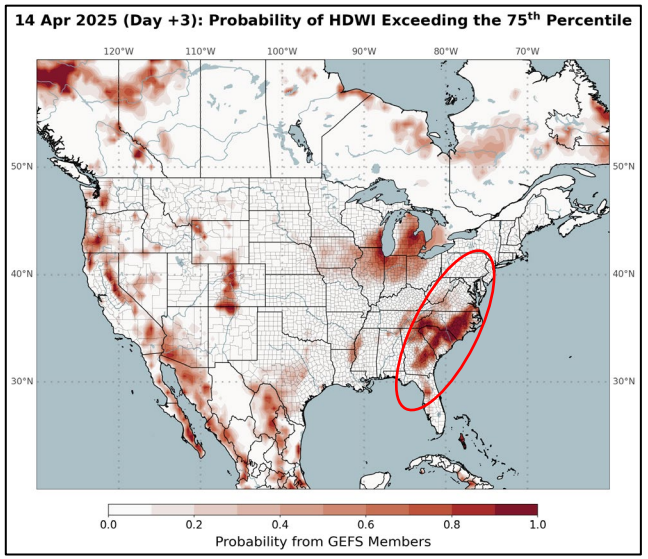
Saturday > 75th Percentile



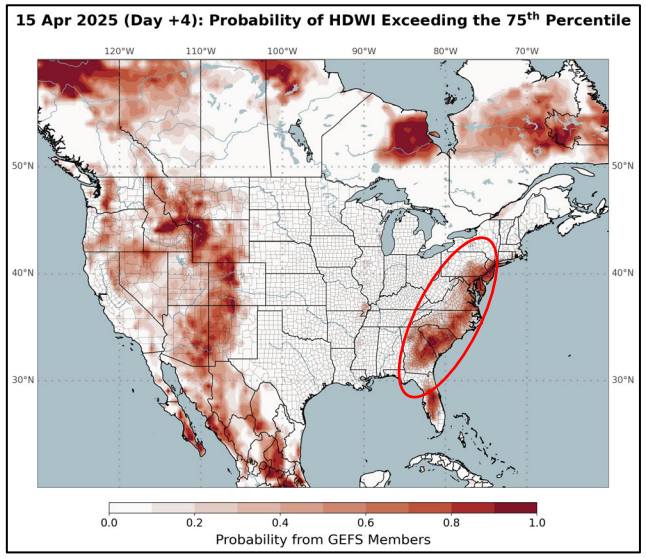
Sunday > 75th Percentile



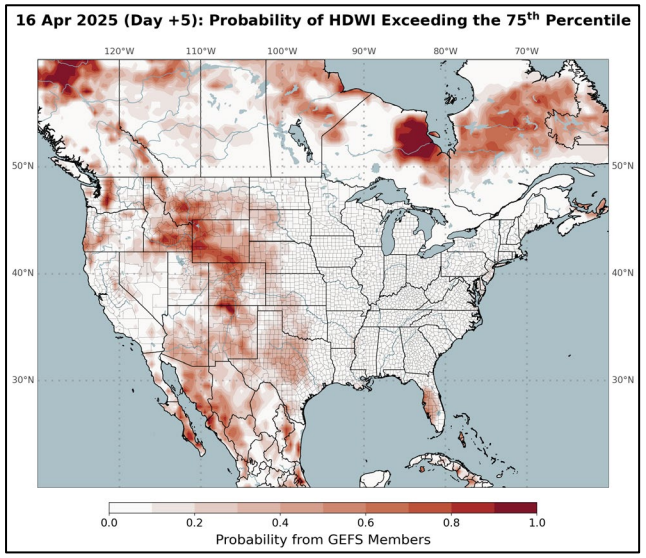
Monday > 75th Percentile



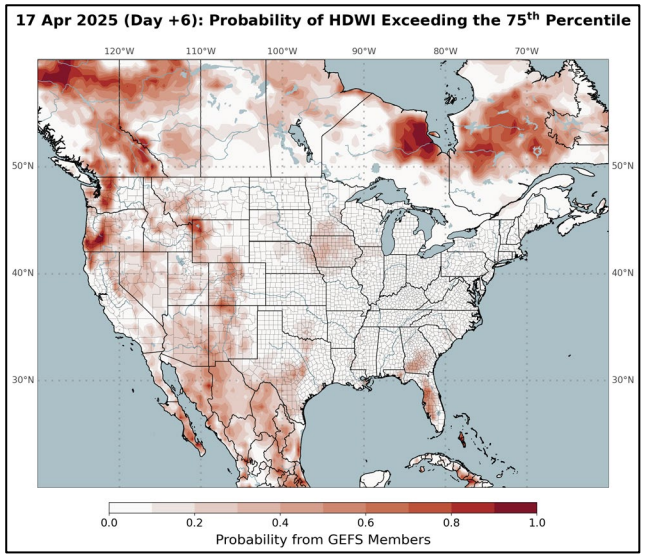
Tuesday > 75th Percentile



Wednesday > 75th Percentile



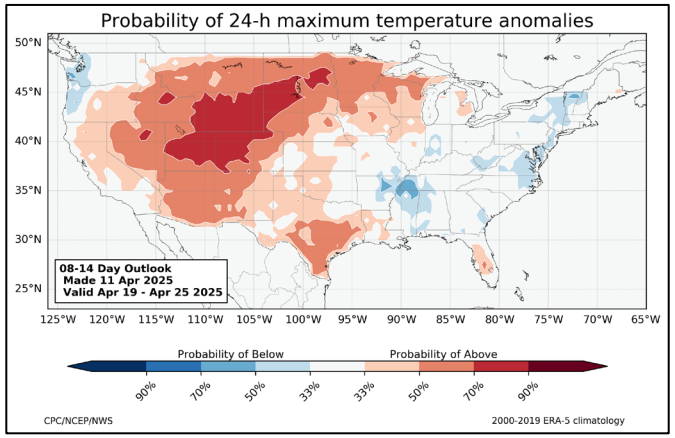
Thursday > 75th Percentile

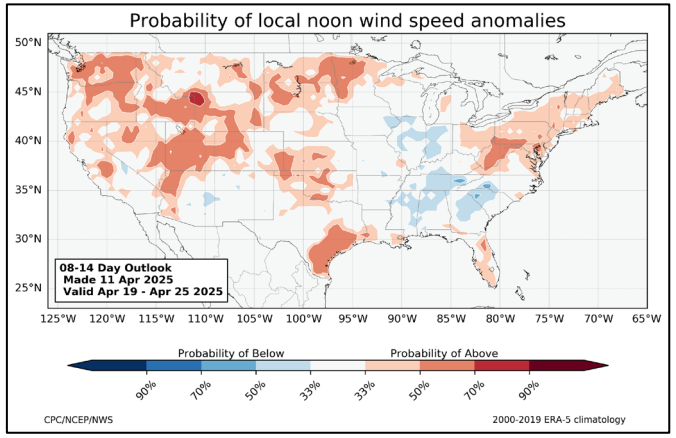


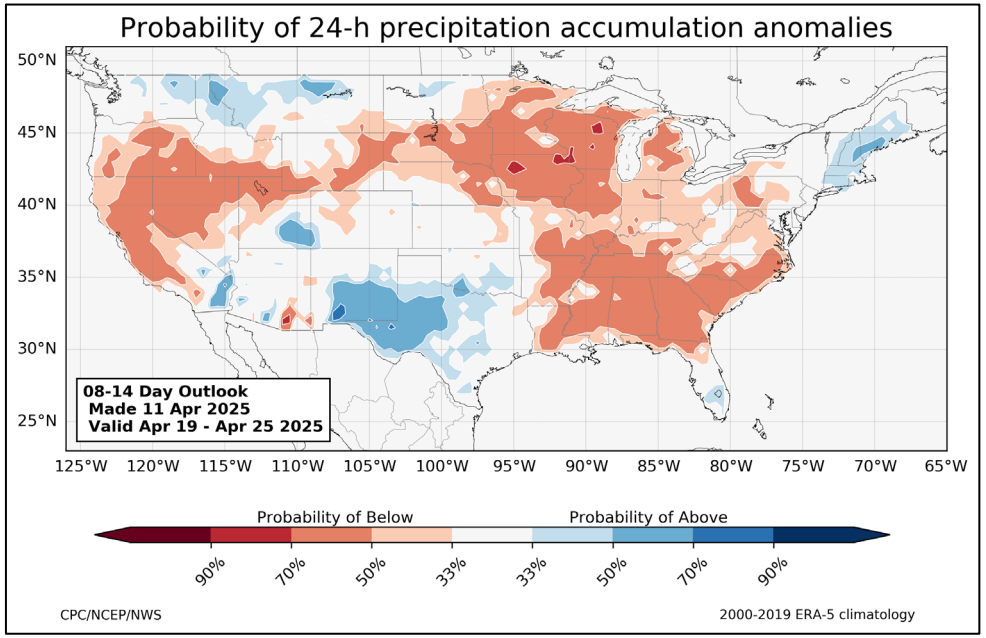
- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions and Topo

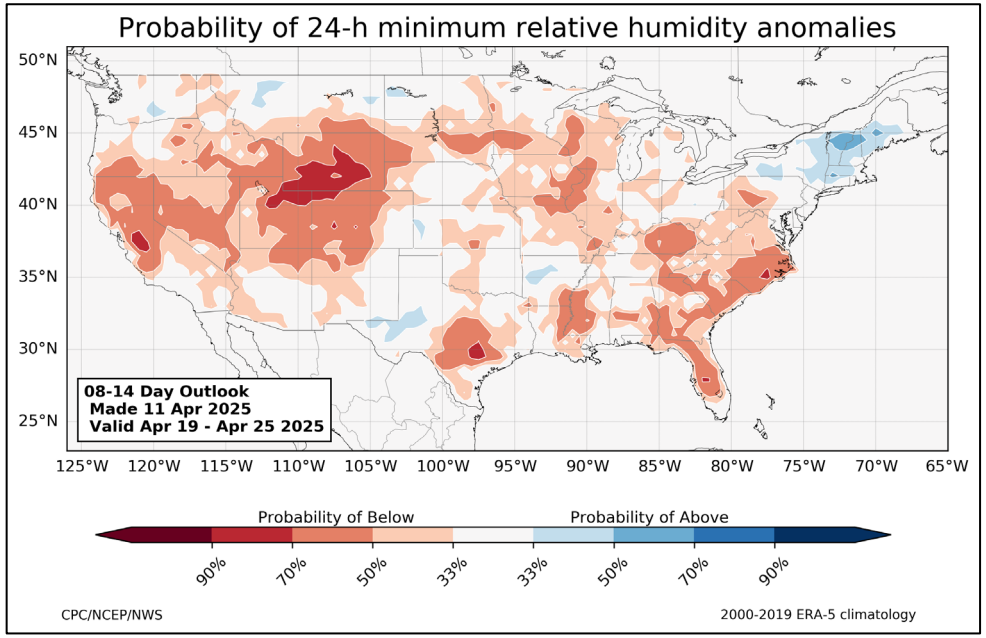
https://www.hdwindex.org/probs.html

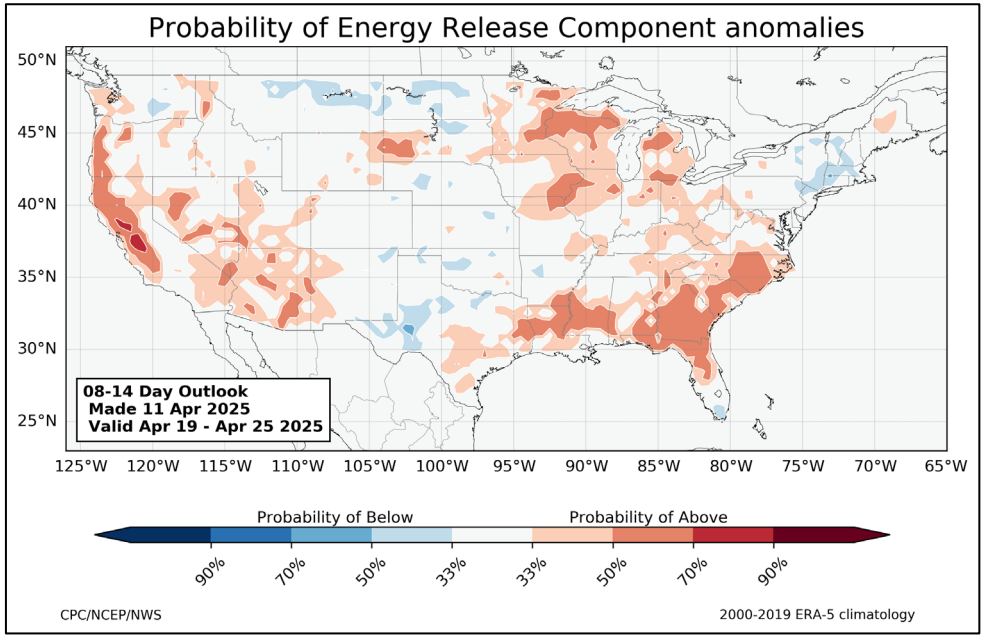
Week Two Forecast Anomalies: 4/19-4/25







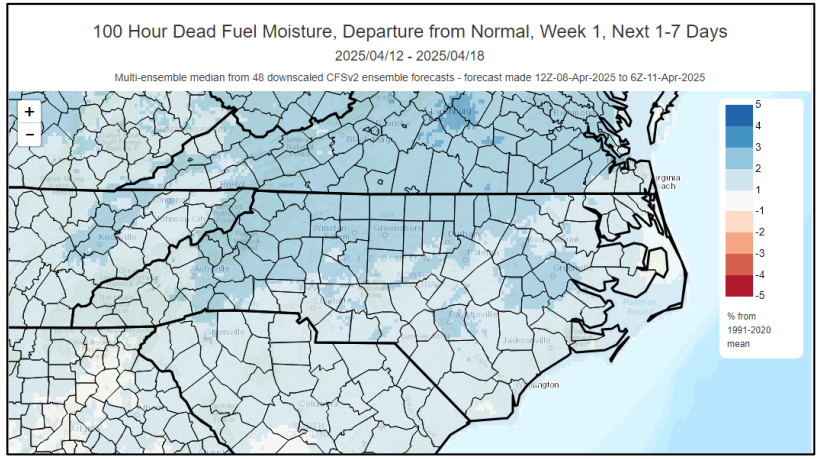




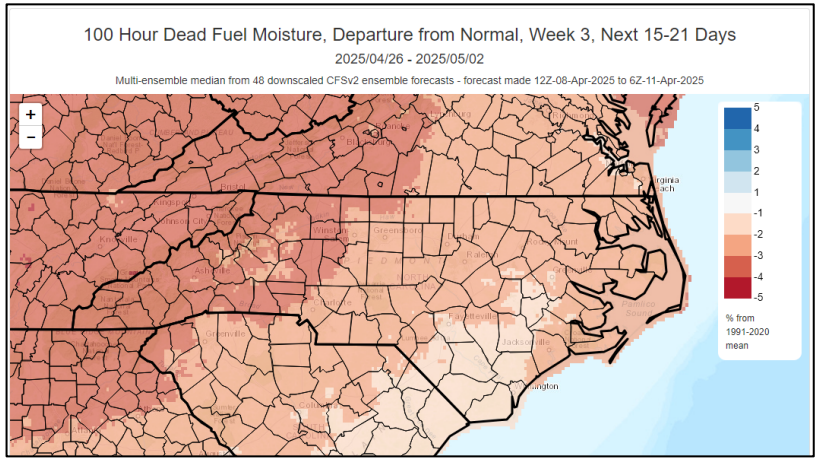
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-3

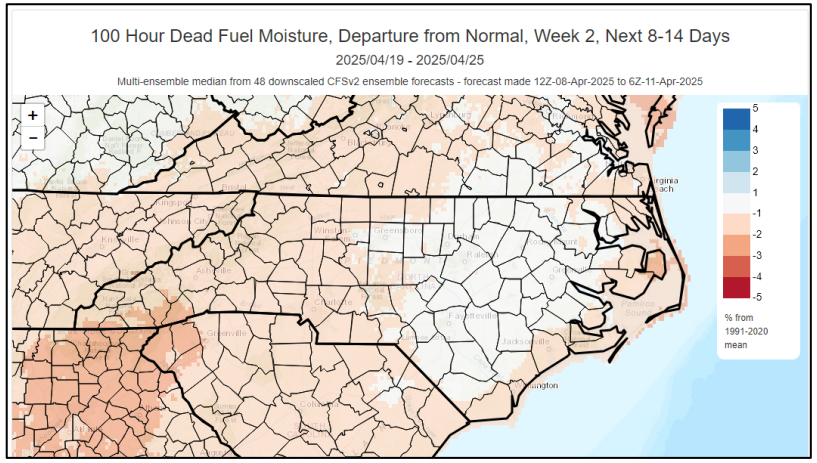


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

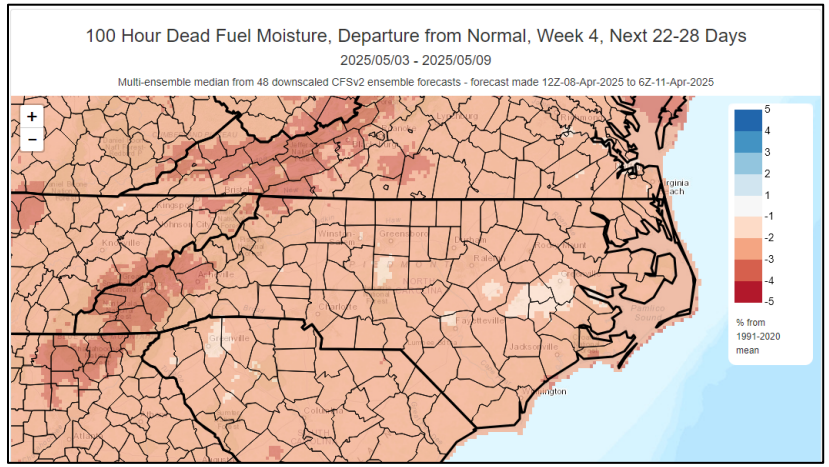
Note the <u>modeled</u> below normal conditions (lower % mc or "worse") for much of the state in Weeks 2-4.

Important to note that there is significant forecast uncertainty as you go further out in time, especially relating to any potential storm tracks.

Week-2



Week-4



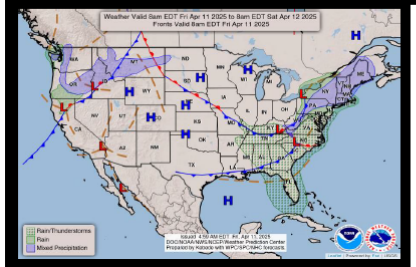
From: https://climatetoolbox.org/tool/Climate-Mapper

SACC Daily Outlook, Selected Snips from Friday - 4/11

https://gacc.nifc.gov/sacc/resources/predictive/sacc-daily-outlook.pdf

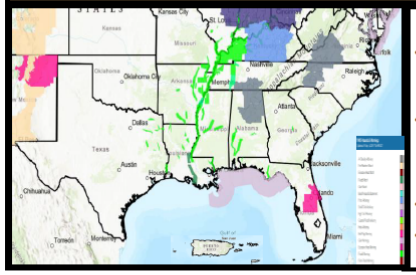
SACC Daily Outlook

Friday, April 11, 2025



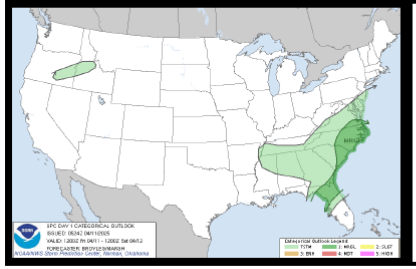
- A cold front continues to move across the southern portion of the area.
- Showers and storms are possible for areas east of the Mississippi River.
- A second front, behind the first, is forecast to quickly catch up and merge with the first late today and early tonight.
- High pressure is forecast to build in behind the fronts.
- A warming trend is in place for areas west of the Mississippi River.
- A cold air mass is forecast to push in to the eastern portion, bringing near freezing temperatures to the Appalachians, KY, and TN.

Watches, Warnings and Advisories as of 7 am EST This Morning



- **Red Flag Warnings/Fire Weather Watch:** There is a Red Flag Waning for most of Central Florida for breezy conditions, dry fuels, and low RH.
- **Flood Watches/Warnings/Advisories:** Flood Warnings are in effect for western KY, and the MS River from the Big Rivers area, south. There are also warningsin AR, LA, E TX, MS, and AL.
- **Severe Weather Watches:** None.
- **Winter Storm Warnings/Watches/Advisories:** A Frost Advisory is in effect for Central KY.

Storm Prediction Center Convective Outlook for Today



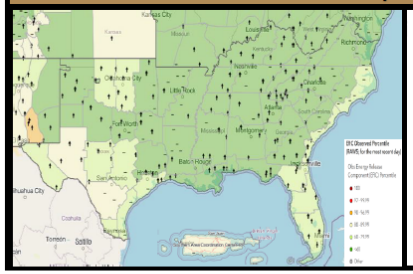
- There is a Marginal risk of strong to severe storms are possible for North Florida, the Georgia, North Carolina, and North Carolina Coasts and adjacent areas.
- The main hazards are are strong winds, which could be damaging, hail, with isolated areas seeing large hail. There is also a non-zero chance of a tornado in North Carolina.

Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

SACC Daily Outlook

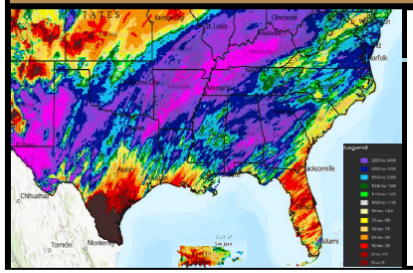
Friday, April 11, 2025

Observed/Forecast ERC



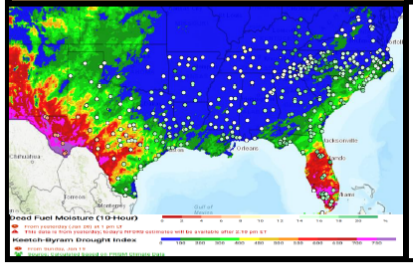
- Most of the PSAs in the Southern Area are reporting ERCs below the 60th percentile.
- Areas above the 60th percentile are mainly below the 80th percentile, with West and the northern Rio Grande Plain being the outliers with ERCs just above the 80th percentile.
- The forecast over the next 3 days is showing ERCs:
  - The entire Southern Area is forecast to remain steady or increase.

7-Day Percent of Normal Precipitation Observed



- Over the last 7 days, significant rain has caused most of the Southern Area to well above normal rainfall.
- South Texas, most of Florida, the Georgia and South Carolina coasts, and Puerto Rico remain well below normal.
- Most of the Southern Area is near or above normal rainfall over the last 14 days.
  - The driest areas for the last 14 days are South Texas, and Florida.

10 Hour Dead Fuel Moisture with the KBDI (shaded)



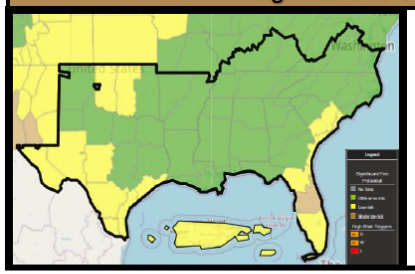
- 10-hour Fuel Moistures generally above 15% across the Southern Area, with pockets of 10% to 14%.
  - Most of the 10% to 14% measurements are in western TN, western KY, OK, Central TX, and the TX/OK Panhandles.
- West TX are still reporting moistures below 10%.
- KBDIs are showing a large area of values at 300 or less.
- W/SW TX and S FL have the highest KBDIs, with much of these areas at 700 and above.

Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

SACC Daily Outlook

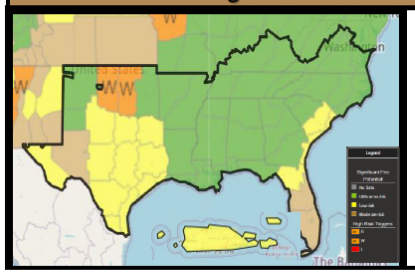
Friday, April 11, 2025

Significant Potential for Today



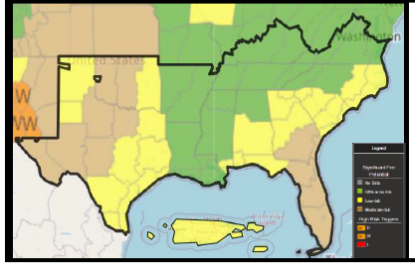
- **High Risk:** None.
- **Moderate Risk:** Central Florida for low RH, wind, and dry Fuels.
- **Low Risk:** West TX, South TX, the TX coast, western and Central OK, NE and South FL, PR/VI, and SC coast and coastal plain for low RH and dry fuels.

Significant Fire Potential for Tomorrow



- **High Risk:** Western and Central OK for gusty wind, dry fuel, and low RH.
- **Moderate Risk:** West TX, as well as Central and South FL for low RH and dry fuels.
- **Low Risk:** Central/South/North, and East TX, the SC coast and coastal plain, the GA coast, NE FL, and PR/VI for low RH and dry fuels.

Significant Fire Potential for Sunday

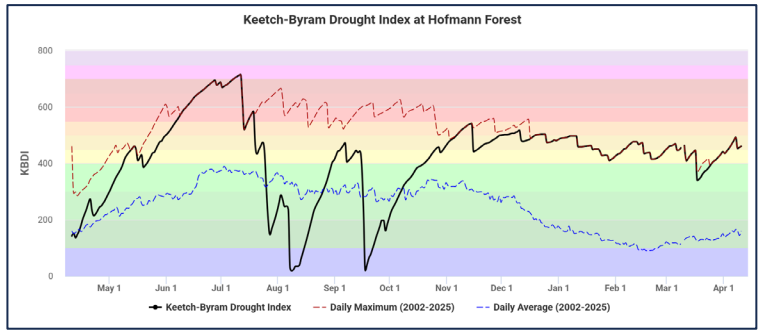


- **High Risk:** None.
- **Moderate Risk:** West/Central/and North TX, western and Central OK, South Georgia and the Georgia coast, NE FL, and the FL peninsula.
- **Low Risk:** South and East TX, the TX/OK Panhandles, East OK, the MS and AL coasts, S AL, North and Central GA, the GA/SC Mts, SC, the NC Coastal plain and coast, NW FL, and PR/VI for low RH and dry fuels.

National 7-Day Significant Fire Potential Outlook

R1 Fuels and Soil Conditions

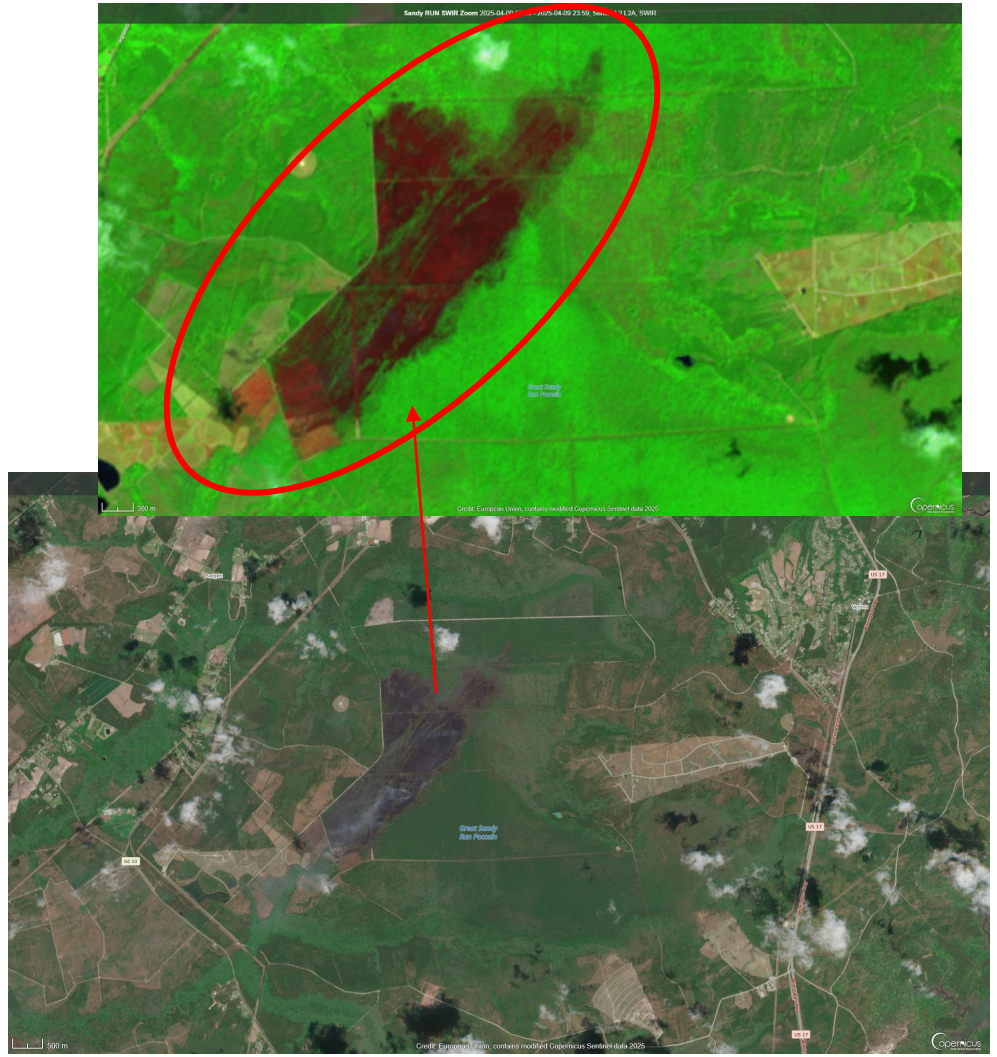
- "Greenup" has been most beneficial for yards & road shoulders with leaf-out still progressing in the forest.
- Bay/Pocosin type understory shrub species such as evergreen Gallberry & Fetterbush remain very flammable due to volatile compounds in their leaf tissue + Spring distribution of moisture in their old/new growth, including stems. Alignment of fire effective weather with greening bay/pocosin fuels + drought fuel loading can cause significant containment and control challenges. Smoldering organics with post-fire needle cast can also lead to escapes.
- Drought conditions are becoming more evident. Local resources report minimal/no water in many forest ditch networks and smaller stream features in the Onslow area (aligning with various drought metrics).
- KBDI plot for Hofmann Forest RAWS (below).



R1/D4/Onslow County: Note dust and dry plowed line from a recent IA fire.

- Recent noted fire behavior in these types of dense forest fuels overlapping with drought impacts have shown very active/intense behavior with spotting. Duff and organics have begun to consume in the driest areas. Higher degree of concern for sites with unregulated artificial drainage.
- The overlap of wetting rains (limited amts) and unsettled weather has helped keep fire environment conditions temporarily checked. Unless <u>significant repeated soaking rains occur</u> in drought impacted areas, we can expect more consumption of organics/duff/heavy dead along with associated increases energy release and difficulty of control as we progress through Spring.
- Previously displayed maps highlight these areas (see USDM, KBDI, SPI and PNP maps).

R1/D4/Onslow/Sandy Run Area (DOD Ownership) – fire discovered on Monday (4/7) afternoon lining up with extremely warm and windy conditions, prior to overnight frontal passage/precip. The image is from Wednesday (4/9) via Sentinel-2 Viewer – top is SWIR, bottom is True Color.



https://browser.dataspace.copernicus.eu

- Precip has been beneficial for much of the state, however many areas are still well below normal for monthly and seasonal precip – especially much of Eastern NC.

- Greenup processes are advancing due to the warmer than normal weather, especially at lower elevations and earlier species. Overall, it is beginning to provide limited positive impact to forest conditions for wind interception, shading and associated adjustments to indices. It will draw down soil moisture rapidly in areas already experiencing drought. Yards & road shoulders continue to exhibit the most significant positive impact.

- We have also continued to see generally good recoveries overnight & unsettled weather west after the past few weeks of very dry air and wind. Later in week we'll see several days of much drier air return.

- SACC noted Potential for Mountain Wave event on/around Tuesday for mountain districts, however this will overlap fuels benefiting from recent significant wetting rains and greening (more-lower, less-higher). Will need to watch for fuel alignment, including TS Helene impacts, as we get closer to wind event.

- Adj Rating – Models are picking up on dry air + associated decline in 100hr fuel moistures, especially later in week. Remember that premise of NFDRS is landscape scale FIRE DANGER relating to initiating fires, not fire specific FIRE BEHAVIOR, also once daily output at 1300 rh.

- Note HDW values for much of Eastern NC above the 75th percentile for Mon/Tues. (Slide #33) Also see SACC Significant Fire Potential Map. Very warm, clear conditions look to return early next week – see forecasted drying trend for Back Island RAWS in Pender County (bottom right).

- Typical "Spring Fire Season" activity & difficulty of control trend upwards going into/through April as dormant/greening fuel conditions and weather events align, especially when lack of adequate precip and freeze events occur. Transition to Eastern "Lightning Season" in volatile bay/pocosin type fuels - depending upon drought related impacts & degree of greenup. Traditionally, lightning occurrence & associated acreage typically peak in May/June for R1 districts.

- TS Helene impacts remain as the outlier to eventual seasonal "Mountain/Foothills Greenup" – canopy closure, regrowth/death of downed/damaged timber, understory response, moisture balance with canopy removed and potential for lightning ignitions if drought conditions overlap severely damaged areas.

Predicted Adjective Rating - Fire Danger *(ERC & 100-HR)*

From the Fire Weather Intelligence Portal • *products.climate.ncsu.edu/fire*

Forecasted Adjective Rating for FDRAs in North Carolina

FDRA	Fri Apr 11	Sat Apr 12	Sun Apr 13	Mon Apr 14	Tue Apr 15	Wed Apr 16	Thu Apr 17
Southern Highlands X	L	L	M	M	H	H	H
Central Mountains X	L	L	M	M	M	M	M
Northern Highlands X	L	L	M	M	M	M	H
Blue Ridge X	L	L	L	M	M	M	M
Western Piedmont X	L	L	M	M	M	M	M
Sandhills Z	M	M	M	M	H	H	H
Eastern Piedmont X	M	L	M	M	M	M	M
Southern Coast X	L	L	L	L	M	M	H
Northern Coast X	L	L	L	L	L	M	M